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FINANCIAL STATEMENTS

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As filed with the Securities and Exchange Commission on February 12, 2018

Registration Statement No. 333-

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

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

BioXcel Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**2834**	**82-1386754**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

780 East Main Street
Branford, CT 06405
(203) 643-8060
(Address and telephone number of registrant's principal executive offices)

Vimal Mehta, Ph.D.
Chief Executive Officer
BioXcel Therapeutics, Inc.
780 East Main Street
Branford, CT 06405
(203) 643-8060
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Jeffrey J. Fessler, Esq.	**Peter N. Handrinos, Esq.**
Stephen A. Cohen, Esq.	**Keith L. Halverstam, Esq.**
Sheppard, Mullin, Richter & Hampton LLP	**Latham & Watkins LLP**
30 Rockefeller Plaza	**200 Clarendon Street**
New York, NY 10112-0015	**Boston, MA 02116**
(212) 653-8700	**(617) 948-6000**

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this registration statement becomes effective.

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

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

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

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

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

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	**Proposed Maximum Aggregate Offering Price[1]**	**Amount of Registration Fee[2]**

Common Stock, par value $0.001 per share	$69,000,000	$8,590.50

1 Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. Includes shares of common stock that the underwriters have the option to purchase to cover over-allotments, if any.

2 Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price of the securities registered hereunder to be sold by the registrant.

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

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The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated February 12, 2018

PROSPECTUS

Shares

BioXcel Therapeutics, Inc.

Common Stock

This is the initial public offering of shares of common stock of BioXcel Therapeutics, Inc. We are offering shares of our common stock. No public market currently exists for our stock. We anticipate that the initial public offering price will be between $ and $ per share.

We have applied to list our shares on The Nasdaq Capital Market under the symbol "BTAI." Upon completion of this offering, we will be a "controlled company" as defined in the corporate governance rules of The Nasdaq Capital Market.

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 13.

	Per Share	Total
Price to the public	$	$
Underwriting discounts and commissions	$	$
Proceeds to us (before expenses)[1]	$	$

1 We refer you to "Underwriting" beginning on page 166 of this prospectus for additional information regarding underwriting compensation.

We have granted the underwriters a 30-day option to purchase up to additional shares at the initial public offering price, less the underwriting discount.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares on or about , 2018.

Joint Book-Running Managers

Barclays **UBS Investment Bank** **BMO Capital Markets**

Lead Manager

Canaccord Genuity

Prospectus dated , 2018

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We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give to you. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock.

You should rely only on the information contained in this prospectus. No dealer, salesperson or other person is authorized to give information that is not contained in this prospectus. This prospectus is not an offer to sell nor is it seeking an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of these securities.

PROSPECTUS SUMMARY

The following summary highlights selected information contained elsewhere in this prospectus and is qualified in its entirety by the more detailed information and financial statements included elsewhere in this prospectus. It does not contain all the information that may be important to you and your investment decision. You should carefully read this entire prospectus, including the matters set forth under "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our financial statements and related notes included elsewhere in this prospectus. In this prospectus, unless context requires otherwise, references to "we," "us," "our," "BTI" "BioXcel Therapeutics," or "the Company" refer to BioXcel Therapeutics, Inc. and references to "BioXcel" refer to our parent, BioXcel Corporation.

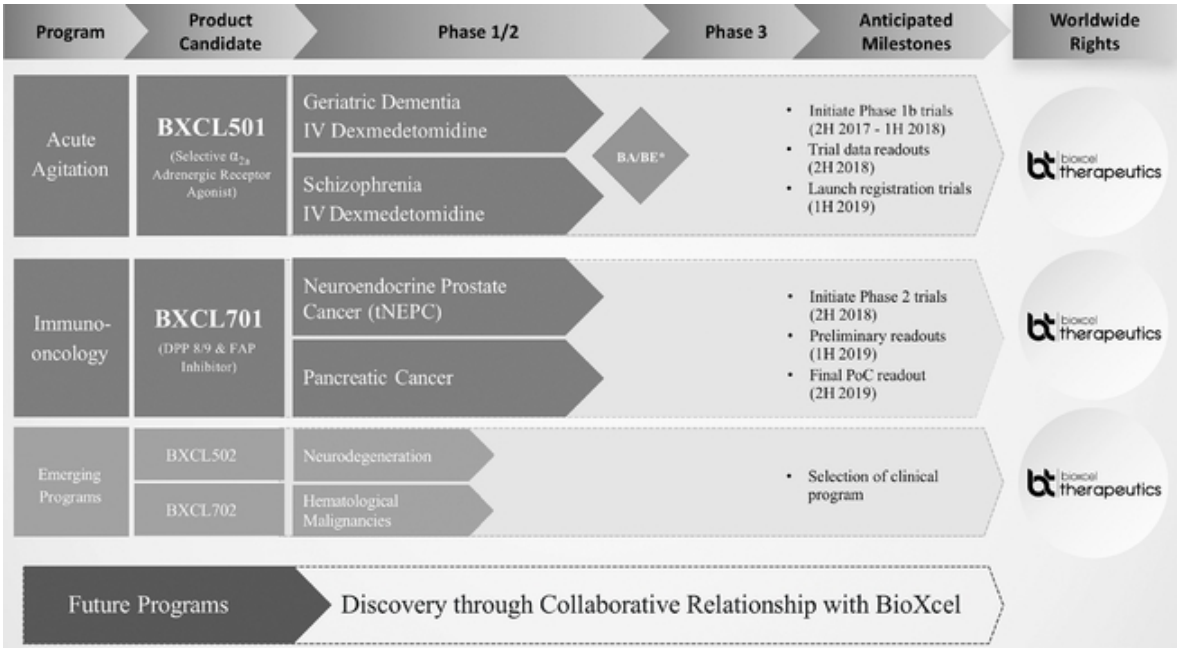
Overview

We are a clinical stage biopharmaceutical company focused on drug development that utilizes novel artificial intelligence, or AI, to identify the next wave of medicines across neuroscience and immuno-oncology. Our drug re-innovation approach leverages existing approved drugs and/or clinically validated product candidates together with big data and proprietary machine learning algorithms to identify new therapeutic indices. We believe that this differentiated approach has the potential to reduce the cost and time of drug development in diseases with substantial unmet medical need. Our two most advanced clinical development programs are BXCL501, a sublingual thin film formulation of dexmedetomidine, or Dex, designed for acute treatment of agitation resulting from neurological and psychiatric disorders, and BXCL701, an immuno-oncology agent designed for treatment of a rare form of prostate cancer and for treatment of pancreatic cancer. We initiated a Phase 1b pharmacokinetic/pharmacodynamic, or PK/PD, safety study using the IV formulation of Dex in mild probable Alzheimer's Disease, or AD, in December 2017 and we plan to initiate a Phase 1b PK/PD safety study using the IV formulation of Dex in schizophrenia patients in the first half of 2018. We expect to report data from both studies by the second half of 2018. We also intend to commence Phase 2 proof of concept, or PoC, open label clinical trials in 2018 for both programs. We expect that a data readout from the planned Phase 2 PoC clinical trials for the BXCL501 program will be available by the end of 2018, potentially leading to the start of registration trials, and that preliminary data from the planned Phase 2 PoC clinical trial of BXCL701 will be available in the first half of 2019. We retain global development and commercialization rights to these two programs.

We were formed to develop first-in-class, high value therapeutics by leveraging EvolverAI, a research and development engine created and owned by our parent, BioXcel Corporation, or BioXcel. We believe the combination of our therapeutic area expertise and our ability to generate product candidates through our exclusive collaborative relationship with BioXcel in the areas of neuroscience and immuno-oncology gives us a significant competitive advantage. EvolverAI was developed over the last decade and integrates millions of fragmented data points using artificial intelligence and proprietary machine learning algorithms. After evaluating multiple product candidates using EvolverAI, we selected our lead programs because our analysis indicated these drugs may have utility in new therapeutic indices where there is substantial unmet medical needs and limited competition. By focusing on clinical candidates with relevant human data, we believe our approach will help us design more efficient clinical trials, thereby accelerating our product candidates' time to market.

Product Candidates

The following table summarizes our lead development programs. We believe our product candidates have the potential to be first-in-class treatment options for their indications:



* Bridging bioavailability/bioequivalence (BA/BE) study for optimizing BXCL501 sublingual thin film dose for Phase 3 registration trials

There is currently no active IND for any of our product candidates in the United States, however, our initial clinical trial of the IV formulation of Dex for mild probable AD was granted an IND exemption by the FDA on September 25, 2017. There has been no authorization received from any other drug regulatory authority.

BXCL501, Potential First-in-Class Sublingual Thin Film, α_{2a}Adrenergic Receptor Agonist, for Acute Treatment of Agitation

BXCL501 is a potential first-in-class sublingual thin film formulation of Dex designed for acute treatment of agitation in neurodegenerative and psychiatric disorders. Dex has been well tolerated, having been prescribed in millions of patients as the sedative and anesthetic Precedex and has been studied in over 130 clinical trials to date. BXCL501 is designed to be a non-invasive, easy to administer agent that has a rapid onset of action, which is critical for the acute treatment of agitation. We estimate that over 500,000 patients who suffer from AD in the United States annually could be eligible for the acute treatment of agitation with BXCL501. In schizophrenia and bipolar disease, we estimate that over 600,000 patients in the United States annually could be eligible for the acute treatment of agitation with BXCL501. The current treatment options for agitation utilize antipsychotics and benzodiazepines, which have suboptimal safety and compliance issues. Antipsychotics have a black box warning for use in the elderly, can produce debilitating side effects when given acutely and should only be considered for invasive intramuscular, or IM, delivery in highly aggressive patients requiring restraint. Benzodiazepines are predominantly in pill form, which require swallowing and can produce excessive sedation. We believe that BXCL501, with its differentiated pharmacology and ease of administration, if approved, could potentially be a first-in-class, non-invasive acute treatment for mild to moderate agitation.

We have designed a dual clinical development program intended to take advantage of the U.S. Food and Drug Administration's, or FDA, Section 505(b)(2) regulatory pathway and leverage the existing clinical and safety dataset of intravenous, or IV, formulation of Dex. We initiated a Phase 1b single ascending or descending dose study using the IV formulation of Dex in mild probable AD in December 2017 and we plan to initiate a Phase 1b single ascending or descending dose study in schizophrenia patients in the first half of 2018, followed by a PoC open label clinical trial. We expect to report data from both studies by the second half of 2018. We intend to initiate a bridging bioavailability/bioequivalence, or BA/BE, study with the sublingual thin film formulation in the second half of 2018 that, if successful, could potentially lead to the start of a registration trial in the first half of 2019. We plan on submitting an NDA for BXCL501 in 2020.

BXCL701, Potential First-in-Class DPP 8/9 and FAP Inhibitor for the Treatment of tNEPC and Pancreatic Cancer

BXCL701 is a potential first-in-class, highly potent oral small molecule immuno-modulator that is designed to stimulate both the innate and acquired immune systems by inhibiting dipeptidyl peptidase, or DPP, 8/9 and fibroblast activation protein, or FAP. DPP 8/9 have been show recently to behave as an "immuno-checkpoint" of the immune system, as their inhibition results in a potent pro-inflammatory, anti-tumor activity by way of the induction of cell death in the macrophages and the downstream stimulation of multiple tumor-killing immune cells. BXCL701 is differentiated among DPP inhibitors for its specificity to inhibit DPP 8/9 and FAP, whereas most other approved or clinical stage DPP inhibitors, developed to treat diabetes, are selective for DPP 4. Based on our analysis, we believe that BXCL701 establishes a differentiated immuno-oncology platform by modulating multiple steps in the cancer immunity cycle, and in combination with checkpoint inhibitors can convert immuno-resistant tumors to immuno-sensitive tumors ("cold" to "hot" tumors). BXCL701 has been tested in more than 700 healthy subjects and cancer patients across multiple clinical trials, providing evidence of being well tolerated, proof of mechanism, and single agent anti-tumor activity in patients with melanoma, an immuno-sensitive tumor. We believe that we can leverage this clinical data to determine the dose to use in future clinical trials and support accelerated clinical development. BXCL701 is a potential novel therapy for treatment-emergent neuroendocrine prostate cancer, or tNEPC, a segment of prostate cancer patients that have progressed on second-generation androgen inhibitors (Zytiga and Xtandi), and is also a potential treatment for pancreatic cancer, both of which are rare diseases.

We selected tNEPC and pancreatic cancer as our lead indications after evaluating more than 100 different tumor types because they are two of the top three cancers that overexpressed or amplified DPP 8/9 and FAP. Additional data points to a functional role of DPP 8/9 in the biology of tNEPC. The combined global sales of Zytiga and Xtandi, which are only approved for prostate cancer treatment, were over $4.5 billion in 2016. Approximately one in three patients on these drugs are expected to develop tNEPC and could be eligible for treatment with BXCL701 based on information in an article published in the Journal of the National Comprehensive Cancer Network in 2014 by Agarwal et. al. and an article published by the Journal of Clinical Oncology in 2014 by Wang et. al. In pancreatic cancer, we estimate that approximately 20,000 patients will be eligible for treatment with BXCL701 annually as about 50% of pancreatic cancer patients can receive 2nd line therapy based on information in an article published in the Annals of Oncology in 2013 by Rahma et. al. We plan to initiate two Phase 2 PoC open label clinical trials in the second half of 2018, as a single agent and in combination with Keytruda in patients with tNEPC, and in combination with Keytruda in pancreatic cancer. We expect to receive preliminary data in the first half of 2019 and intend to pursue breakthrough therapy designation and accelerated approval pathways for both indications. BXCL701 has already received orphan drug designation by the FDA for the treatment of pancreatic cancer.

Emerging Programs

We intend to grow our pipeline with additional development candidates by leveraging our management team's therapeutic area expertise with EvolverAI. We believe EvolverAI is a novel method of finding potential product candidates because it combines the comprehensiveness and efficiency of machine learning and big data analytics with the expertise and intuition of human experience in drug development. We are also exploring development of BXCL502, a novel approach to the treatment of symptoms resulting from neurological disorders, and BXCL702, an immuno-oncology agent targeting hematological malignancies for which we have received orphan drug designation from the FDA for the treatment of acute myeloid leukemia, or AML. We retain global development and commercialization rights to these two programs. We intend to select our next clinical program in 2018 from our emerging or future programs.

Our Strategy

Our goal is to become a leader in the field of neuroscience and immuno-oncology. The key elements to achieving this goal are to:

- **Advance BXCL501 for the acute treatment of agitation through the FDA Section 505(b)(2) pathway.** We are pursuing a dual clinical development program and plan to initiate two Phase 1b single ascending or descending dose studies of the IV formulation of Dex in mild probable AD and schizophrenia patients in the first half of 2018, followed by PoC open label clinical trials. We intend to initiate a bridging BA/BE study with the sublingual thin film formulation in the second half of 2018 to identify the optimal dose range for our planned registration trial in the first half of 2019.

- **Advance BXCL701 into Phase 2 trials to assess its potential to be the first approved therapy for tNEPC and for the treatment of pancreatic cancer.** We plan to initiate two Phase 2 PoC open label clinical trials in the second half of 2018, as a single agent and in combination with Keytruda in patients with tNEPC and in combination with Keytruda in pancreatic cancer. We expect to receive preliminary data in the first half of 2019 and intend to pursue breakthrough therapy designation and accelerated approval pathways for both indications.

- **Maximize the therapeutic and commercial potential of BXCL501 and BXCL701 by exploring their use for multiple indications.** Based on the broad applicability of the mechanisms of action of our two lead product candidates, we intend to explore a series of follow-on indications for BXCL501 (acute treatment of agitation resulting from delirium, substance abuse withdrawal and PTSD) and BXCL701 (potential as a combination agent for multiple tumor indications, offering a "pipeline in a product" platform).

- **Identify biomarkers to select patients who have the highest likelihood to respond to our product candidates.** Predicting optimal drug responses in patients requires the identification and validation of predictive biomarkers, specifically in cancer. The indications for our product candidate BXCL701 were chosen in part because they are known to overexpress DPP 8/9 and FAP. Our planned PoC clinical trial of BXCL701 will examine biomarkers related to its molecular and cellular targets to identify those that may correlate with clinical efficacy and increase our likelihood of success.

- **Enhance our R&D pipeline by leveraging our therapeutic area expertise with EvolverAI to identify, develop and commercialize new product candidates in neuroscience and immuno-oncology.** In addition to our leading clinical programs and our emerging and future pipeline, we intend to select our next clinical program during 2018. We have established translational and development expertise, which we believe will help us advance the present and future product candidates in these fields. We may also opportunistically in-license additional

product candidates identified through our AI platform approach within our core areas of expertise.

- **Maximize the commercial potential of our product candidates.** We have worldwide development and commercialization rights to our BXCL501, BXCL701, BXCL502 and BXCL702 product candidates. If BXCL501 and BXCL701 are approved in the United States, we would consider building a specialty sales force in the United States and/or collaborate with third parties to maximize the potential of our product candidates. Furthermore, we intend to commercialize BXCL501 and BXCL701 outside the United States through collaborations with third parties.

Our Team

We have assembled a management team with extensive experience in the discovery, development and approval of more than 10 drugs and who have held senior executive roles at leading pharmaceutical companies, including: our co-founder and Chief Executive Officer, Vimal Mehta, Ph.D., our Chief Scientific Officer, Frank Yocca, Ph.D., our Chief Medical Officer, Vince O'Neill, M.D., our Vice President—Oncology R&D, Luca Rastelli, Ph.D., and our Chief Financial Officer, Richard Steinhart. We are also supported by our experienced board of directors and advisory board, which includes Drs. Peter Mueller (Vertex, Boehringer Ingelheim), Steven Paul (Voyager Therapeutics, Sage Therapeutics, Eli Lilly) and Sheila Gujrathi (Receptos, Bristol-Myers Squibb, Roche), who contribute to our strategy with their expertise in building public companies. We believe that our team is ideally positioned to leverage our highly differentiated platform to develop the next wave of innovative medicines.

Our Relationship with BioXcel

We are currently a 93% owned subsidiary of BioXcel. After the closing of this offering, we expect to be a "controlled company" within the meaning of the corporate governance rules of The Nasdaq Capital Market. Assuming we sell the number of the shares set forth on the cover page of this prospectus, BioXcel will own, in the aggregate, approximately % of our outstanding common shares, or approximately % if the underwriters exercise their option to purchase additional common shares in full. BioXcel will be able to exercise control over all matters requiring shareholder approval, including the election of our directors and approval of significant corporate transactions.

We have entered into an asset contribution agreement, effective June 30, 2017, with BioXcel, as amended and restated on November 7, 2017, or the Contribution Agreement, pursuant to which BioXcel agreed to contribute to us, and we agree to acquire from BioXcel, all of BioXcel's rights, title and interest in and to BXCL501, BXCL701, BXCL502 and BXCL702, collectively, the Candidates, and all of the assets and liabilities associated with the Candidates. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Asset Contribution Agreement with BioXcel" for additional information.

We have entered into a separation and shared services agreement with BioXcel that took effect on June 30, 2017, as amended and restated on November 7, 2017, or the Services Agreement, pursuant to which BioXcel will allow us to continue to use its office space, equipment, services and leased employees based on the agreed upon terms and conditions for a payment of defined monthly and/or hourly fees. Under this agreement, BioXcel will continue to make such product identification and related services available to us for at least five years. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Separation and Shared Services Agreement with BioXcel" for additional information.

We refer to the agreements set forth above and the series of transactions related to our separation from BioXcel, collectively, as the "Separation."

We believe that a distribution of BTI shares by BioXcel to BioXcel shareholders would be advantageous to the market for our shares by increasing liquidity, would accelerate our ability to become independent from BioXcel by decreasing BioXcel's ownership of our common stock and would be beneficial for BioXcel's stockholders who would have a direct opportunity to participate in the BTI value proposition. BioXcel has advised us that, following the completion of this offering and subject to the expiration of any applicable lock-up periods or other agreements we have or may have with BioXcel described herein, it does not have any near-term plans to distribute our shares held by BioXcel to the BioXcel stockholders. The decision to conduct any such distribution is at the sole discretion of BioXcel's board of directors. There is no assurance that the distribution will ever occur. Presently, it is expected that any potential distribution will be taxable to BioXcel and its stockholders. We refer to any such potential distribution as the "Distribution."

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making a decision to invest in our common shares. These risks are discussed more fully in the "Risk Factors" section of this prospectus. These risks include the following:

- We have a limited operating history and have never generated any product revenues, which may make it difficult to evaluate the success of our business to date and to assess our future viability.
- We have incurred significant operating losses since inception and anticipate that we will continue to incur substantial operating losses for the foreseeable future and may never achieve or maintain profitability.
- Even if this offering is successful, we will need substantial additional funding, and if we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.
- We have limited experience in drug discovery and drug development, and we have never had a drug approved.
- In the near term, we are dependent on the success of BXCL501 and BXCL701. If we are unable to initiate or complete the clinical development of, obtain marketing approval for or successfully commercialize BXCL501, BXCL701 and our other product candidates, either alone or with a collaborator, or if we experience significant delays in doing so, our business could be substantially harmed.
- The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming, expensive and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.
- BioXcel's approach to the discovery and development of product candidates based on EvolverAI is novel and unproven, and we do not know whether we will be able to develop any products of commercial value.
- We will be substantially dependent on third parties for the manufacture of our clinical supplies of our product candidates. Therefore the development of our products could be stopped or delayed, and our commercialization of any future product could be stopped or delayed or made less profitable if third party manufacturers fail to provide us with sufficient quantities at acceptable prices.
- BioXcel controls the direction of our business, and the concentrated ownership of our common stock will prevent you and other stockholders from influencing significant decisions.

- Following this offering, we will continue to depend on BioXcel to provide us with certain services for our business.
- We may be a "controlled company" within the meaning of the Nasdaq rules and, as a result, may qualify for, and may rely on, exemptions from certain corporate governance requirements that provide protection to stockholders of other companies.
- It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection. If our patent position does not adequately protect our product candidates, others could compete against us more directly, which would harm our business, possibly materially.
- An active trading market for our common stock may not develop, and you may not be able to sell your common stock at or above the initial public offering price.
- We are an "emerging growth company" and will be able to avail ourselves of reduced disclosure requirements applicable to emerging growth companies, which could make our common stock less attractive to investors.

Corporate Information

We were incorporated as a Delaware corporation on March 29, 2017 as a wholly-owned subsidiary of BioXcel. Our principal executive offices are located at 780 East Main St., Branford, CT 06405 and our telephone number is (203) 643-8060. Our website address is www.bioxceltherapeutics.com. The information contained on our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our common shares.

We have proprietary rights to a number of trademarks used in this prospectus which are important to our business, including the BTI logo. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. All other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

Implications of Being an Emerging Growth Company

As a company with less than $1.07 billion in revenues during our last fiscal year, we qualify as an emerging growth company as defined in the Jumpstart Our Business Startups Act, or the JOBS Act, enacted in 2012. As an emerging growth company, we expect to take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- being permitted to present only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure in this prospectus;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We may use these provisions until the last day of our fiscal year following the fifth anniversary of the completion of this offering. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

We have chosen to opt out of the extended transition periods available to emerging growth companies under the JOBS Act for complying with new or revised accounting standards. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition periods for complying with new or revised accounting standards is irrevocable.

The JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

To the extent that we continue to qualify as a "smaller reporting company," as such term is defined in Rule 12b-2 under the Securities Exchange Act of 1934, after we cease to qualify as an emerging growth company, certain of the exemptions available to us as an emerging growth company may continue to be available to us as a smaller reporting company, including: (i) not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes Oxley Act; (ii) scaled executive compensation disclosures; and (iii) the requirement to provide only two years of audited financial statements, instead of three years.

THE OFFERING

Common stock offered by us	shares
Common stock to be outstanding immediately after this offering	shares (shares if the underwriters exercise their option in full)
Option to purchase additional shares	The underwriters have an option for a period of 30 days to purchase up to an additional shares of our common stock.
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $, or approximately $ if the underwriters exercise their over-allotment option in full, at an assumed initial public offering price of $ per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering to fund our planned clinical development of BXCL501 through Phase 2 clinical development and potentially commence one registration trial, to fund our planned clinical development of BXCL701 through Phase 2 clinical development, to make certain payments to BioXcel, and for general corporate purposes and working capital. We may also use a portion of the net proceeds to in-license, acquire or invest in complementary businesses or products, however, we have no current commitments or obligations to do so. See "Use of Proceeds" for a more complete description of the intended use of proceeds from this offering.
Controlled company	Upon the closing of this offering, BioXcel Corporation will beneficially own a controlling interest in us and we expect to be a "controlled company" under Nasdaq rules. As a controlled company, we may elect to avail ourselves of the controlled company exemption under the corporate governance requirements of the Nasdaq.
Risk factors	See "Risk Factors" on page 14 and other information included in this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Proposed Nasdaq Capital Market symbol	"BTAI"

The number of shares of our common stock to be outstanding after this offering is based on 41,804 shares of our common stock outstanding as of December 31, 2017, and excludes:

- the sale of 1,196 shares of common stock in January and February 2018, at a price of $1,629.45 per share;

- 9,747 shares of common stock issuable upon exercise of stock options outstanding as of December 31, 2017, 9,393 of which are at an exercise price of $97.61 per share and 354 of which are at an exercise price of $1,314.20; and
- 2,753 shares of our common stock reserved for future issuance under our 2017 Equity Incentive Plan.

Except as otherwise indicated herein, all information in this prospectus assumes, including the number of shares of common stock that will be outstanding after this offering, assumes or gives effect to

- a -for-1 stock split of our common stock effected on ;
- no exercise by the underwriters of their option to purchase an additional shares of common stock;
- no exercise of outstanding options after December 31, 2017; and
- the effectiveness of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior to the closing of this offering.

Summary Financial Data

The following table sets forth our summary financial data as of the dates and for the periods indicated. We have derived the summary statement of operations data for the years ended December 31, 2017 and 2016 from our audited financial statements included elsewhere in this prospectus. The following summary financial data should be read with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes and other information included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results to be expected in future periods.

Our historical results of operations presented below may not be reflective of our financial position, results of operations and cash flows had we operated as a stand-alone public company during all periods presented. Prior to June 30, 2017, we operated as part of BioXcel and not as a separate stand-alone entity. Our financial statements prior to June 30, 2017 have been prepared on a "carve-out" basis from the financial statements of BioXcel to represent our financial position and performance as if we had existed on a stand-alone basis during each of the fiscal years presented in the financial statements. The financial information for the period beginning January 1, 2017 through June 30, 2017 have been carved out of the financial statements of BioXcel. Our financial information for the period beginning July 1, 2017 through December 31, 2017 have been prepared as if we are a standalone entity. These results reflect amounts specifically attributable to our business, including the costs BioXcel incurred for the assets that were contributed to us by our parent under the Contribution Agreement and the Services Agreement. The agreements provide us with certain general and administrative and development support services that became effective June 30, 2017. However, during the carve-out period, consistent with accounting regulations, we have assumed that we were a separate business within BioXcel and we have reflected the related assets, liabilities and expenses in our results for periods prior to and post incorporation. We believe that such allocations have been made on a reasonable basis, but may not necessarily be indicative of all of the costs that would have been incurred if we had operated on a standalone basis.

Statement of Operations Data:

(in thousands, except share and per share data)

	Years Ended December 31,	
	2017	2016
Revenues	$ —	$ —
Operating costs and expenses		
Research and development	2,690	1,399
General and administrative	1,847	721
Total operating expenses	4,537	2,120
Loss from operations	(4,537)	—
Other expense		
Interest expense	(2)	—
Net loss	$ (4,539)	$ (2,120)
Net loss per share—basic and diluted[1]	$ (111.07)	$ (53.00)
Weighted average shares outstanding—basic and diluted[1]	40,865	40,000

1 See Note 3 to our financial statements for an explanation of the method used to compute basic and diluted net loss per share.

Balance Sheet Data:

(in thousands)

	December 31, 2017		
		(unaudited)	
	Actual	Pro Forma[1]	Pro Forma, As Adjusted[2] [3]
Cash and cash equivalents	$ 887	$	$
Working capital deficit	(1,447)		
Total assets	1,355		
Total liabilities	2,337		
Accumulated deficit	(4,450)		
Total stockholders' deficit	(982)		

1 On a pro forma basis to reflect the sale of 1,196 shares of common stock, at a price of $1,629.45 per share in January and February 2018.

2 On a pro forma as adjusted basis to give further effect to our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range listed on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

3 Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, working capital, total assets and total stockholders' equity (deficit) by approximately $, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price per share, the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, working capital, total assets and total stockholders' equity (deficit) by approximately $.

RISK FACTORS

An investment in our common stock involves a high degree of risk. Before making an investment decision, you should give careful consideration to the following risk factors, in addition to the other information included in this prospectus, including our financial statements and related notes, before deciding whether to invest in shares of our common stock. The occurrence of any of the adverse developments described in the following risk factors could materially and adversely harm our business, financial condition, results of operations or prospects. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment.

Risks Related to Financial Position and Need for Capital

We have a limited operating history and have never generated any product revenues, which may make it difficult to evaluate the success of our business to date and to assess our future viability.

We were incorporated in March 2017 and our operations to date have been largely focused on organizing and staffing our company, raising capital and acquiring the rights to, and advancing the development of, our product candidates, including conducting preclinical studies. We have not yet demonstrated an ability to successfully complete clinical trials, obtain marketing approvals, manufacture products on a commercial scale, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful commercialization. Consequently, predictions about our future success or viability may not be as accurate as they could be if we had a longer operating history or a history of successfully developing and commercializing products.

We expect our financial condition and operating results to continue to fluctuate from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. We will need to eventually transition from a company with a research and development focus to a company capable of undertaking commercial activities. We may encounter unforeseen expenses, difficulties, complications and delays, and may not be successful in such a transition.

We have incurred significant operating losses since inception and anticipate that we will continue to incur substantial operating losses for the foreseeable future and may never achieve or maintain profitability.

Since our inception, we have incurred significant operating losses. Our net loss was $4.5 million, and $2.1 million for the years ended December 31, 2017 and 2016, respectively. As of December 31, 2017, we had an accumulated deficit of $4.5 million. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. None of our product candidates have been approved for marketing in the United States, or in any other jurisdiction, and may never receive such approval. It could be several years, if ever, before we have a commercialized product that generates significant revenues. As a result, we are uncertain when or if we will achieve profitability and, if so, whether we will be able to sustain it. The net losses we incur may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially as we:

- continue the development of our product candidates;
- initiate preclinical studies and clinical trials for any additional indications for our current product candidates and any future product candidates that we may pursue;
- continue to build our portfolio of product candidates through the acquisition or in-license of additional product candidates or technologies;
- continue to develop, maintain, expand and protect our intellectual property portfolio;
- pursue regulatory approvals for our current and future product candidates that successfully complete clinical trials;

- ultimately establish a sales, marketing and distribution infrastructure to commercialize any product candidate for which we may obtain marketing approval;
- hire additional clinical, regulatory, scientific and accounting personnel; and
- incur additional legal, accounting and other expenses in operating as a public company.

To become and remain profitable, we must develop and eventually commercialize one or more product candidates with significant market potential. This will require us to be successful in a range of challenging activities, including completing clinical trials of our product candidates, developing commercial scale manufacturing processes, obtaining marketing approval, manufacturing, marketing and selling any current and future product candidates for which we may obtain marketing approval, and satisfying any post-marketing requirements. We are only in the preliminary stages of most of these activities and, in some cases, have not yet commenced certain of these activities. We may never succeed in any or all of these activities and, even if we do, we may never generate sufficient revenue to achieve profitability.

Because of the numerous risks and uncertainties associated with product development, we are unable to accurately predict the timing or amount of expenses or when, or if, we will obtain marketing approval to commercialize any of our product candidates. If we are required by the U.S. Food and Drug Administration, or FDA, or other regulatory authorities such as the European Medicines Agency, or EMA, to perform studies and trials in addition to those currently expected, or if there are any delays in the development, or in the completion of any planned or future preclinical studies or clinical trials of our current or future product candidates, our expenses could increase and profitability could be further delayed.

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 decrease the value of our company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company also could cause you to lose all or part of your investment.

Even if this offering is successful, we will need substantial additional funding, and if we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

We anticipate that our expenses will increase substantially if and as we continue to develop and begin clinical trials with respect to BXCL501, BXCL701 and our other product candidates; seek to identify and develop additional product candidates; acquire or in-license other product candidates or technologies; seek regulatory and marketing approvals for our product candidates that successfully complete clinical trials, if any; establish sales, marketing, distribution and other commercial infrastructure in the future to commercialize various products for which we may obtain marketing approval, if any; require the manufacture of larger quantities of product candidates for clinical development and, potentially, commercialization; maintain, expand and protect our intellectual property portfolio; hire and retain additional personnel, such as clinical, quality control and scientific personnel; add operational, financial and management information systems and personnel, including personnel to support our product development and help us comply with our obligations as a public company; and add equipment and physical infrastructure to support our research and development programs.

We plan to use the net proceeds of this offering primarily to fund our ongoing research and development efforts over the coming months. We will be required to expend significant funds in order to advance the development of BXCL501, BXCL701 and our other product candidates. In addition, while we may seek one or more collaborators for future development of our current product candidate or any future product candidates that we may develop for one or more indications, we may not be able

to enter into a collaboration for any of our product candidates for such indications on suitable terms, on a timely basis or at all. In any event, the net proceeds of this offering and our existing cash and cash equivalents will not be sufficient to fund all of the efforts that we plan to undertake or to fund the completion of development of our product candidates or our other preclinical programs. Accordingly, we will be required to obtain further funding through public or private equity offerings, debt financings, collaborations and licensing arrangements or other sources. Other than our grid note with BioXcel, we do not have any committed external source of funds. Further financing may not be available to us on acceptable terms, or at all. Our failure to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents as of December 31, 2017, will enable us to fund our operating expenses and capital expenditure requirements at least through . Our estimate as to how long we expect the net proceeds from this offering, together with our existing cash and cash equivalents, to be able to continue to fund our operations is based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Further, changing circumstances, some of which may be beyond our control, could cause us to consume capital significantly faster than we currently anticipate, and we may need to seek additional funds sooner than planned. Our future funding requirements, both short-term and long-term, will depend on many factors, including:

- the scope, progress, timing, costs and results of clinical trials of BXCL501, BXCL701 and our other product candidates;
- our ability to enter into and the terms and timing of any collaborations, licensing agreements or other arrangements;
- the costs, timing and outcome of seeking regulatory approvals;
- the costs of commercialization activities for any of our product candidates that receive marketing approval to the extent such costs are not the responsibility of any future collaborators, including the costs and timing of establishing product sales, marketing, distribution and manufacturing capabilities;
- our headcount growth and associated costs as we expand our research and development as well as potentially establish a commercial infrastructure;
- revenue received from commercial sales, if any, of our current and future product candidates;
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending against intellectual property related claims;
- the number of future product candidates that we pursue and their development requirements;
- changes in regulatory policies or laws that may affect our operations;
- changes in physician acceptance or medical society recommendations that may affect commercial efforts;
- the costs of acquiring potential new product candidates or technology; and
- the costs of operating as a public company.

Risks Related to the Discovery and Development of Product Candidates

We have limited experience in drug discovery and drug development, and we have never had a drug approved.

Prior to the acquisition of our product candidates, we were not involved in and had no control over their preclinical and clinical development. In addition, we are relying upon the parties we have

acquired our product candidates from to have conducted such research and development in accordance with the applicable protocol, legal, regulatory and scientific standards, having accurately reported the results of all clinical trials conducted prior to our acquisition of the applicable product candidate, and having correctly collected and interpreted the data from these studies and trials. To the extent any of these has not occurred, our expected development time and costs may be increased, which could adversely affect our prospects for marketing approval of, and receiving any future revenue from, these product candidates.

In the near term, we are dependent on the success of BXCL501 and BXCL701. If we are unable to initiate or complete the clinical development of, obtain marketing approval for or successfully commercialize BXCL501, BXCL701 and our other product candidates, either alone or with a collaborator, or if we experience significant delays in doing so, our business could be substantially harmed.

We currently do not have any products that have received regulatory approval and may never be able to develop marketable product candidates. We are investing a significant portion of our efforts and financial resources in the development of BXCL501, BXCL701 and our other product candidates. Our prospects are substantially dependent on our ability, or that of any future collaborator, to develop, obtain marketing approval for and successfully commercialize product candidates in one or more disease indications.

The success of BXCL501, BXCL701 and our other product candidates will depend on several factors, including the following:

- acceptance of an Investigational New Drug, or IND, for the conduct of clinical trials of product candidates and proposed design of future clinical trials;
- initiation, progress, timing, costs and results of clinical trials of our product candidates and potential product candidates;
- establishment of a safety, tolerability and efficacy profile that is satisfactory to the FDA or any comparable foreign regulatory authority for marketing approval;
- the performance of our future collaborators, if any;
- the extent of any required post-marketing approval commitments to applicable regulatory authorities;
- establishment of supply arrangements with third-party raw materials suppliers and manufacturers;
- establishment of arrangements with third-party manufacturers to obtain finished drug product that is appropriately packaged for sale;
- adequate ongoing availability of raw materials and drug product for clinical development and any commercial sales;
- obtaining and maintaining patent, trade secret protection and regulatory exclusivity, both in the United States and internationally;
- protection of our rights in our intellectual property portfolio;
- successful launch of commercial sales following any marketing approval;
- a continued acceptable safety profile following any marketing approval;
- commercial acceptance by patients, the medical community and third-party payors; and
- our ability to compete with other therapies.

Many of these factors are beyond our control, including the results of clinical trials, the time required for the FDA or any comparable foreign regulatory authorities to review any regulatory submissions we may make, potential threats to our intellectual property rights and the manufacturing, marketing and sales efforts of any future collaborator. If we are unable to develop, receive marketing approval for and successfully commercialize BXCL501, BXCL701 and our other product candidates, on our own or with any future collaborator, or experience delays as a result of any of these factors or otherwise, our business could be substantially harmed.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming, expensive and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

The time required to obtain approval by the FDA and comparable foreign authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. It is not uncommon for companies in the biopharmaceutical industry to suffer significant setbacks in advanced clinical trials due to nonclinical findings made while clinical studies were underway and safety or efficacy observations made in clinical studies, including previously unreported adverse events. Our future clinical trial results may not be successful, and notwithstanding any potential promising results in earlier studies, we cannot be certain that we will not face similar setbacks. The historical failure rate for product candidates in our industry is high. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate and it is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain regulatory approval.

Our product candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of an New Drug Application, or NDA, or other submission or to obtain regulatory approval in the United States or elsewhere; the FDA or comparable foreign regulatory authorities may disagree that our changes to branded reference drugs meet the criteria for the 505(b)(2) regulatory pathway or foreign regulatory pathways;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and

- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

We have not previously completed a clinical trial of any of our product candidates. Consequently, we may not have the necessary capabilities, including adequate staffing, to successfully manage the execution and completion of any clinical trials we initiate in a way that leads to our obtaining marketing approval for our product candidates in a timely manner, or at all. This lengthy approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval to market our product candidates, which would significantly harm our business, results of operations and prospects.

In addition, even if we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our products, may grant approval contingent on the performance of costly post-marketing clinical trials, 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 or may restrict its distribution. Any of the foregoing scenarios could materially harm the commercial prospects for our product candidates.

We have not previously submitted an NDA to the FDA or similar drug approval filings to comparable foreign authorities, for any product candidate, and we cannot be certain that any of our product candidates will be successful in clinical trials or receive regulatory approval. Further, our product candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approvals to market one or more of our product candidates, our revenues will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval and have commercial rights. If the markets for patients that we are targeting for our product candidates are not as significant as we estimate, we may not generate significant revenues from sales of such products, if approved.

We plan to seek regulatory approval to commercialize our product candidates both in the United States and the European Union and in additional foreign countries. While the scope of regulatory approval is similar in other countries, to obtain separate regulatory approval in many other countries we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy and governing, among other things, clinical trials and commercial sales, pricing and distribution of our product candidates, and we cannot predict success in these jurisdictions.

We depend on enrollment of patients in our clinical trials in order for us to continue development of our product candidates. If we are unable to enroll patients in our clinical trials, our research and development efforts could be adversely affected.

The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the study until its conclusion. We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. Patient enrollment 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, the size of the patient population required for analysis of the trial's primary endpoints, the proximity of patients to study sites, our ability to recruit clinical trial investigators with the appropriate competencies and experience, our ability to obtain and maintain patient consents, the risk that patients enrolled in clinical trials will drop out of the trials before completion, and 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. Many pharmaceutical companies are conducting clinical trials in

patients with the disease indications that our potential drug products target. As a result, we must compete with them for clinical sites, physicians and the limited number of patients who fulfill the stringent requirements for participation in clinical trials. Also, due to the confidential nature of clinical trials, we do not know how many of the eligible patients may be enrolled in competing studies and who are consequently not available to us for our clinical trials. Our clinical trials may be delayed or terminated due to the inability to enroll enough patients. The delay or inability to meet planned patient enrollment may result in increased costs and delay or termination of our trials, which could have a harmful effect on our ability to develop products.

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 BXCL501, BXCL701 and our other 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;
- addressing patient safety concerns that arise during the course of a trial;
- having patients complete a trial or return for post-treatment follow-up;
- adding a sufficient number of clinical trial sites; or
- manufacturing sufficient quantities of a product candidate for use in clinical trials.

We may also experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- we may receive feedback from regulatory authorities that requires us to modify the design of our clinical trials;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon drug development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- the cost of clinical trials of our product candidates may be greater than we anticipate;

- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate;
- regulators may revise the requirements for approving our product candidates, or such requirements may not be as we anticipate; and
- any future collaborators that conduct clinical trials may face any of the above issues, and may conduct clinical trials in ways they view as advantageous to themselves but that are suboptimal for us.

For example, we believe that we will be able to proceed directly to Phase 3 registration trials of BXCL501 if we successfully complete our planned Phase 1b/2 open-label PoC and bridging BA/BE studies. However, the FDA may not agree with our development plans and could require us to perform additional clinical trials or preclinical studies, including additional Phase 1 and/or Phase 2 clinical trials, before permitting us to conduct our planned registration trials.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- incur unplanned costs;
- be delayed in obtaining marketing approval for our product candidates or not obtain marketing approval at all;
- obtain marketing approval in some countries and not in others;
- obtain marketing approval for indications or patient populations that are not as broad as intended or desired;
- obtain marketing approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings;
- be subject to additional post-marketing testing requirements; or
- have the drug removed from the market after obtaining marketing approval.

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. They may not perform as required.

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.

Further, conducting clinical trials in foreign countries, as we may do for our current and future product candidates, presents additional risks that may delay completion of our clinical trials. These risks include the failure of enrolled patients in foreign countries to adhere to clinical protocol as a result of differences in healthcare services or cultural customs, managing additional administrative burdens associated with foreign regulatory schemes, as well as political and economic risks relevant to such foreign countries.

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.

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

Undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign authorities. The clinical evaluation of BXCL501, BXCL701 and our other product candidates in patients is still in the early stages and it is possible that there may be side effects associated with their use. To date, based on information available in the package insert for Dex, patients treated with Dex have experienced drug-related side effects including hypotension, transient hypertension, bradycardia, dry mouth, acute respiratory distress syndrome, respiratory failure and agitation with hypotension, bradycardia and dry mouth considered serious adverse events. In addition, based on the investigator brochure for Talabostat, patients treated with Talabostat have experienced edema/peripheral swelling, hypotension, dizziness, hypovolemia fatigue, nausea, vomiting, pyrexia rigors and rash with edema and fatigue representing the most frequently observed serious adverse events. Results of our trials could reveal a high and unacceptable severity and prevalence of these or other side effects. In such an event, we, the FDA, the IRBs at the institutions in which our studies are conducted, or the DSMB could suspend or terminate our clinical trials or the FDA or comparable foreign regulatory authorities could order us to cease clinical trials or deny approval of our product candidates for any or all targeted indications. For example, the FDA placed Point Therapeutics, Inc.'s IND for BXCL701 on clinical hold following an increase in observed mortality in patients receiving BXCL701 in a Phase 3 trial in patients with non-small cell lung cancer. Though we believe that this result was caused by, among other things, an imbalance in the disease severity of patients enrolled in the active arm of the clinical trial, there is no guarantee that excess mortality will not be observed in future clinical studies. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the clinical trial or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff. We expect to have to train medical personnel using our product candidates to understand the side effect profiles for our clinical trials and upon any commercialization of any of our product candidates. Inadequate training in recognizing or managing the potential side effects of our product candidates could result in patient injury or death. Any of these occurrences may harm our business, financial condition and prospects significantly.

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

- regulatory authorities may withdraw approvals of such products;
- we may be required to recall a product or change the way such a product is administered to patients;
- additional restrictions may be imposed on the marketing or distribution of the particular product or the manufacturing processes for the product or any component thereof;

- regulatory authorities may require additional warnings on the label, such as a "black box" warning or contraindication;
- we may be required to implement Risk Evaluation and Mitigation Strategies, or REMS, or create a medication guide outlining the risks of such side effects for distribution to patients;
- we could be sued and held liable for harm caused to patients;
- our product may become less competitive; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate or for particular indications of a product candidate, if approved, and could significantly harm our business, results of operations and prospects.

BioXcel's approach to the discovery and development of product candidates based on EvolverAI is novel and unproven, and we do not know whether we will be able to develop any products of commercial value.

We are leveraging EvolverAI to create a pipeline of neuroscience and immuno-oncology product candidates for patients whose diseases have not been adequately addressed to date by other approaches and to design and conduct efficient clinical trials with a higher likelihood of success. While we believe that applying EvolverAI to create medicines for defined patient populations may potentially enable drug research and clinical development that is more efficient than conventional drug research and development, our approach is both novel and unproven. Because our approach is both novel and unproven, the cost and time needed to develop our product candidates is difficult to predict, and our efforts may not result in the discovery and development of commercially viable medicines. We may also be incorrect about the effects of our product candidates on the diseases of our defined patient populations, which may limit the utility of our approach or the perception of the utility of our approach. Furthermore, our estimates of our defined patient populations available for study and treatment may be lower than expected, which could adversely affect our ability to conduct clinical trials and may also adversely affect the size of any market for medicines we may successfully commercialize. Our approach may not result in time savings, higher success rates or reduced costs as we expect it to, and if not, we may not attract collaborators or develop new drugs as quickly or cost effectively as expected and therefore we may not be able to commercialize our approach as originally expected.

EvolverAI may fail to help us discover and develop additional potential product candidates.

Any drug discovery that we are conducting using EvolverAI may not be successful in identifying compounds that have commercial value or therapeutic utility. EvolverAI may initially show promise in identifying potential product candidates, yet fail to yield viable product candidates for clinical development or commercialization for a number of reasons, including:

- research programs to identify new product candidates will require substantial technical, financial and human resources, and we may be unsuccessful in our efforts to identify new product candidates. If we are unable to identify suitable additional compounds for preclinical and clinical development, our ability to develop product candidates and obtain product revenues in future periods could be compromised, which could result in significant harm to our financial position and adversely impact our stock price;
- compounds found through EvolverAI may not demonstrate efficacy, safety or tolerability;
- potential product candidates may, on further study, be shown to have harmful side effects or other characteristics that indicate that they are unlikely to receive marketing approval and achieve market acceptance;

- competitors may develop alternative therapies that render our potential product candidates non-competitive or less attractive; or
- a potential product candidate may not be capable of being produced at an acceptable cost.

An NDA submitted under Section 505(b)(2) subjects us to the risk that we may be subject to a patent infringement lawsuit that would delay or prevent the review or approval of our product candidate.

Our product candidates will be submitted to the FDA for approval under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, or FDCA. Section 505(b)(2) permits the submission of an NDA where at least some of the information required for approval comes from studies that were not conducted by, or for, the applicant and on which the applicant has not obtained a right of reference. The 505(b)(2) application would enable us to reference published literature and/or the FDA's previous findings of safety and effectiveness for a branded reference drug with the same active ingredient. For NDAs submitted under Section 505(b)(2) of the FDCA, the patent certification and related provisions of the Drug Price Competition and Patent Term Restoration Act of 1984, also known as the Hatch-Waxman Act, apply. In accordance with the Hatch-Waxman Act, such NDAs may be required to include certifications, known as paragraph IV certifications, that certify that any patents listed in the Patent and Exclusivity Information Addendum of the FDA's publication, Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book, with respect to any product referenced in the 505(b)(2) application, are invalid, unenforceable or will not be infringed by the manufacture, use or sale of the product that is the subject of the 505(b)(2) NDA.

Under the Hatch-Waxman Act, the holder of patents that the 505(b)(2) application references may file a patent infringement lawsuit after receiving notice of the paragraph IV certification. Filing of a patent infringement lawsuit against the filer of the 505(b)(2) applicant within 45 days of the patent owner's receipt of notice triggers a one-time, automatic, 30-month stay of the FDA's ability to approve the 505(b)(2) NDA, unless patent litigation is resolved in the favor of the paragraph IV filer or the patent expires before that time. Accordingly, we may invest a significant amount of time and expense in the development of one or more product candidates only to be subject to significant delay and patent litigation before such product candidates may be commercialized, if at all. In addition, a 505(b)(2) application will not be approved until any non-patent exclusivity, such as exclusivity for obtaining approval of a new chemical entity, or NCE, listed in the Orange Book for the branded reference drug product has expired. The FDA may also require us to perform one or more additional clinical studies or measurements to support the change from the branded reference drug, which could be time consuming and could substantially delay our achievement of regulatory approvals for such product candidates. The FDA may also reject our future 505(b)(2) submissions and require us to file such submissions under Section 505(b)(1) of the FDCA, which would require us to provide extensive data to establish safety and effectiveness of the drug product for the proposed use and could cause delay and be considerably more expensive and time consuming. These factors, among others, may limit our ability to successfully commercialize our product candidates.

The FDA and other regulatory agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses.

If we are found to have improperly promoted off-label uses of our products or product candidates, if approved, we may become subject to significant liability. Such enforcement has become more common in the industry. The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about prescription drug products, such as our product candidates, if approved. In particular, a product may not be promoted for uses that are not approved by the FDA or such other regulatory agencies as reflected in the product's approved labeling. If we receive marketing approval for our product candidates for our proposed indications, physicians may nevertheless use our products for their patients in a manner that is inconsistent with the approved label, if the physicians personally

believe in their professional medical judgment it could be used in such manner. However, if we are found to have promoted our products for any off-label uses, the federal government could levy civil, criminal and/or administrative penalties, and seek fines against us. The FDA or other regulatory authorities could also request that we enter into a consent decree or a corporate integrity agreement, or seek a permanent injunction against us under which specified promotional conduct is monitored, changed or curtailed. If we cannot successfully manage the promotion of our product candidates, if approved, we could become subject to significant liability, which would materially adversely affect our business and financial condition.

We may seek Fast Track designation for one or more of our product candidates, but we might not receive such designation, and even if we do, such designation may not actually lead to a faster development or regulatory review or approval process.

If a product is intended for the treatment of a serious condition and nonclinical or clinical data demonstrate the potential to address unmet medical need for this condition, a product sponsor may apply for FDA Fast Track designation. If we seek Fast Track designation for a product candidate, we may not receive it from the FDA. However, even if we receive Fast Track designation, Fast Track designation does not ensure that we will receive marketing approval or that approval will be granted within any particular timeframe. We may not experience a faster development or regulatory review or approval process with Fast Track designation compared to conventional FDA procedures. In addition, the FDA may withdraw Fast Track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast Track designation alone does not guarantee qualification for the FDA's priority review procedures.

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

Any regulatory approvals that we receive for our product candidates may be subject to limitations on the approved indicated uses for which the product may be marketed or the conditions of approval, or contain requirements for potentially costly post-market testing and surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a REMS as a condition of approval of our product candidates, which could include requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves our product candidates, our product candidates will remain subject to ongoing requirements governing the manufacturing process, labeling, packaging, storage, advertising, distribution, import, export, promotion, recordkeeping and adverse event reporting. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with good clinical practice, or GCP, requirements for any clinical trials that we conduct post-approval. In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with Good Manufacturing Practices, or GMP, regulations. If we or a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product or the manufacturer, including requiring voluntary or mandatory recalls, additional restrictions on manufacturing or withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters;

- impose civil or criminal penalties;
- suspend regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve pending applications or supplements to applications filed by us;
- impose restrictions on operations, including costly new manufacturing requirements;
- seize or detain products or request us to initiate a product recall; or
- pursue and obtain an injunction.

Any failure by us to comply with existing regulations could harm our reputation and operating results.

We will be subject to extensive regulation by U.S. federal and state and foreign governments in each of the markets where we intend to sell BXCL501 and BXCL701 if and after they are approved. For example, we will have to adhere to all regulatory requirements including the FDA's current GCPs, Good Laboratory Practice, or GLP, and GMP requirements. If we fail to comply with applicable regulations, including FDA pre-or post- approval cGMP requirements, then the FDA or other foreign regulatory authorities could sanction us. Even if a drug is FDA-approved, regulatory authorities may impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-marketing studies.

Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses, divert our management's attention from the operation of our business and damage our reputation. We expend significant resources on compliance efforts and such expenses are unpredictable and might adversely affect our results.

The FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. For example, in December 2016, the 21st Century Cures Act, or Cures Act, was signed into law. The Cures Act, among other things, is intended to modernize the regulation of drugs and spur innovation, but its ultimate implementation is unclear. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business, prospects, financial condition and results of operations.

In addition, we cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. For example, certain policies of the Trump administration may impact our business and industry. Namely, the Trump administration has taken several executive actions, including the issuance of a number of Executive Orders, that could impose significant burdens on, or otherwise materially delay, FDA's ability to engage in routine oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. Notably, on January 30, 2017, President Trump issued an Executive Order directing all executive agencies, including the FDA, that, for each notice of proposed rulemaking or final regulation to be issued in fiscal year 2017, the agency shall identify at least two existing regulations to be repealed, unless prohibited by law. These requirements are referred to as the "two-for-one" provisions. This Executive Order includes a budget neutrality provision that requires the total incremental cost of all new regulations in the 2017 fiscal year, including repealed regulations, to be no greater than zero, except in limited circumstances. For fiscal years 2018 and beyond, the Executive Order requires agencies to identify regulations to offset any incremental cost of a new regulation. In interim guidance issued by the Office of Information and Regulatory Affairs within OMB on February 2, 2017, the administration indicates that the

"two-for-one" provisions may apply not only to agency regulations, but also to significant agency guidance documents., and on September 8, 2017, the FDA published notices in the Federal Register soliciting broad public comment to identify regulations that could be modified in compliance with these Executive Orders. It is difficult to predict how these requirements will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose restrictions on FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted. In addition, if we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

We may be subject to extensive regulations outside the United States and may not obtain marketing approvals for products in Europe and other jurisdictions.

In addition to regulations in the United States, should we or our collaborators pursue marketing approvals for BXCL501, BXCL701 and our other product candidates internationally, we and our collaborators will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of our products. Whether or not we, or our collaborators, obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country.

We expect to pursue marketing approvals for BXCL501, BXCL701 and our other product candidates in Europe and other jurisdictions outside the United States with collaborative partners. The time and process required to obtain regulatory approvals and reimbursement in Europe and other jurisdictions may be different from those in the United States regulatory and approval in one jurisdiction does not ensure approvals in any other jurisdiction; however, negative regulatory decisions in any jurisdiction may have a negative impact on the regulatory process in other jurisdictions.

Additionally, on June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union, commonly referred to as Brexit. On March 29, 2017, the country formally notified the European Union of its intention to withdraw pursuant to Article 50 of the Lisbon Treaty. Since a significant proportion of the regulatory framework in the United Kingdom is derived from European Union directives and regulations, the referendum could materially impact the regulatory regime with respect to the approval of our product candidates in the United Kingdom or the European Union. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, would prevent us from commercializing our product candidates in the United Kingdom and/or the European Union and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom and/or European Union for our product candidates, which could significantly and materially harm our business.

If we are found in violation of federal or state "fraud and abuse" laws, we may be required to pay a penalty and/or be suspended from participation in federal or state health care programs, which may adversely affect our business, financial condition and results of operations.

In the United States, we will be subject to various federal and state health care "fraud and abuse" laws, including anti-kickback laws, false claims laws and other laws intended to reduce fraud and abuse in federal and state health care programs, which could affect us, particularly upon successful commercialization of our products in the United States. The federal Anti-Kickback Statute makes it illegal for any person, including a prescription drug manufacturer (or a party acting on its behalf), to knowingly and willfully solicit, receive, offer or pay any remuneration that is intended to induce the

referral of business, including the purchase, order or prescription of a particular drug for which payment may be made under a federal health care program, such as Medicare or Medicaid. Under federal government regulations, some arrangements, known as safe harbors, are deemed not to violate the federal Anti-Kickback Statute. Although we seek to structure our business arrangements in compliance with all applicable requirements, these laws are broadly written, and it is often difficult to determine precisely how the law will be applied in specific circumstances. Accordingly, it is possible that our practices may be challenged under the federal Anti-Kickback Statute. False claims laws prohibit anyone from knowingly and willfully presenting or causing to be presented for payment to third-party payers, including government payers, claims for reimbursed drugs or services that are false or fraudulent, claims for items or services that were not provided as claimed, or claims for medically unnecessary items or services. Cases have been brought under false claims laws alleging that off-label promotion of pharmaceutical products or the provision of kickbacks has resulted in the submission of false claims to governmental health care programs. Under the Health Insurance Portability and Accountability Act of 1996, we are prohibited from knowingly and willfully executing a scheme to defraud any health care benefit program, including private payers, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for health care benefits, items or services. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including fines and/or exclusion or suspension from federal and state health care programs such as Medicare and Medicaid and debarment from contracting with the U.S. government. In addition, private individuals have the ability to bring actions on behalf of the government under the federal False Claims Act as well as under the false claims laws of several states.

Many states have adopted laws similar to the federal anti-kickback statute, some of which apply to the referral of patients for health care services reimbursed by any source, not just governmental payers. Neither the government nor the courts have provided definitive guidance on the application of fraud and abuse laws to our business. Law enforcement authorities are increasingly focused on enforcing these laws, and if we are found in violation of one of these laws, we could be required to pay a penalty and could be suspended or excluded from participation in federal or state health care programs, and our business, results of operations and financial condition may be adversely affected.

We may be unable to maintain sufficient clinical trial liability insurance.

Our inability to obtain and retain sufficient clinical trial liability insurance at an acceptable cost to protect against potential liability claims could prevent or inhibit our ability to conduct clinical trials for product candidates we develop. We are currently a 93% owned subsidiary of BioXcel and until the closing of this offering, we will be operated as a majority-owned subsidiary of BioXcel, and we are covered under BioXcel's insurance policies. We currently do not have clinical trial liability insurance and would need to secure coverage before commencing patient enrollment for our clinical trials in the United States, which we currently expect to occur in 2018. Any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. We expect we will supplement our clinical trial coverage with product liability coverage in connection with the commercial launch of BXCL501, BXCL701 or other product candidates we develop in the future; however, we may be unable to obtain such increased coverage on acceptable terms or at all. If we are found liable in a clinical trial lawsuit or a product liability lawsuit in the future, we will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

Risks Related to Commercialization of Our Product Candidates

If our products do not gain market acceptance, our business will suffer because we might not be able to fund future operations.

A number of factors may affect the market acceptance of our products or any other products we develop or acquire, including, among others:

- the price of our products relative to other products for the same or similar treatments;
- the perception by patients, physicians and other members of the health care community of the effectiveness and safety of our products for their indicated applications and treatments;
- our ability to fund our sales and marketing efforts; and
- the effectiveness of our sales and marketing efforts.

If our products do not gain market acceptance, we may not be able to fund future operations, including developing, testing and obtaining regulatory approval for new product candidates and expanding our sales and marketing efforts for our approved products, which would cause our business to suffer.

If the FDA does not conclude that our product candidates satisfy the requirements for the 505(b)(2) regulatory approval pathway, or if the requirements for approval of any of our product candidates under Section 505(b)(2) are not as we expect, the approval pathway for our product candidates will likely take significantly longer, cost significantly more and encounter significantly greater complications and risks than anticipated, and in any case may not be successful.

We intend to seek FDA approval through the 505(b)(2) regulatory pathway for certain of our product candidates, including BXCL501. The Hatch-Waxman Act, added Section 505(b)(2) to the FDCA. Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies that were not conducted by or for the applicant. If the FDA does not allow us to pursue the 505(b)(2) regulatory pathway for our product candidates as anticipated, we may need to conduct additional clinical trials, provide additional data and information and meet additional standards for regulatory approval. If this were to occur, the time and financial resources required to obtain FDA approval for our product candidates would likely substantially increase. Moreover, the inability to pursue the 505(b)(2) regulatory pathway could result in new competitive products reaching the market faster than our product candidates, which could materially adversely impact our competitive position and prospects. Even if we are allowed to pursue the 505(b)(2) regulatory pathway for a product candidate, we cannot assure you that we will receive the requisite or timely approvals for commercialization of such product candidate. In addition, we expect that our competitors will file citizens' petitions with the FDA in an attempt to persuade the FDA that our product candidates, or the clinical studies that support their approval, contain deficiencies. Such actions by our competitors could delay or even prevent the FDA from approving any NDA that we submit under Section 505(b)(2).

We expect to rely heavily on orphan drug status to commercialize some of our product candidates, if approved, but any orphan drug designations we recieve may not confer marketing exclusivity or other expected commercial benefits.

We expect to rely heavily on orphan drug exclusivity for our product candidates. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. In addition, if a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan drug exclusivity. Orphan drug exclusivity in the

United States provides that the FDA may not approve any other applications, including a full NDA, to market the same drug for the same indication for seven years, except in limited circumstances the applicable exclusivity period is ten years in Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified. Although we have received orphan designation for BXCL701 for the treatment of pancreatic cancer, BXCL701 has not been granted orphan designation as of the date of this prospectus for the treatment of NEPC.

Even if we, or any future collaborators, obtain orphan drug designation for a product candidate, we, or they, may not be able to obtain or maintain orphan drug exclusivity for that product candidate. We may not be the first to obtain marketing approval of any product candidate for which we have obtained orphan drug designation for the orphan-designated indication due to the uncertainties associated with developing pharmaceutical products, and it is possible that another company also holding orphan drug designation for the same product candidate will receive marketing approval for the same indication before we do. If that were to happen, our applications for that indication may not be approved until the competing company's period of exclusivity expires. In addition, exclusive marketing rights in the United States may be limited if we seek approval for an indication broader than the orphan-designated indication or may be lost if the FDA later determines that the request for designation was materially defective or if we are unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition. Further, even if we, or any future collaborators, obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties may be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve the same drug with the same active moiety for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care or the manufacturer of the product with orphan exclusivity is unable to maintain sufficient product quantity. Orphan drug designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process, nor does it prevent competitors from obtaining approval of the same product candidate as ours for indications other than those in which we have been granted orphan drug designation.

We may seek a breakthrough therapy designation for BXCL701 or one or more of our other product candidates, we might not receive such designation, and even if we do, such designation may not lead to a faster development or regulatory review or approval process.

We may seek a breakthrough therapy designation for BXCL701 or one or more of our other product candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs and biologics that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA may also be eligible for priority review if supported by clinical data at the time the NDA is submitted to the FDA.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe that one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. Even if we receive breakthrough therapy designation, the receipt of such designation for a product candidate may not result in a faster development or regulatory review or approval process compared to drugs considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA.

In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the product candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

We may seek priority review designation for BXCL701 or one or more of our other product candidates, but we might not receive such designation, and even if we do, such designation may not lead to a faster development or regulatory review or approval process.

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

If we are unable to develop satisfactory sales and marketing capabilities, we may not succeed in commercializing BXCL501, BXCL701 or any other product candidate.

We have no experience in marketing and selling drug products. We have not entered into arrangements for the sale and marketing of BXCL501, BXCL701 or any other product candidate. Typically, pharmaceutical companies would employ groups of sales representatives and associated sales and marketing staff numbering in the hundreds to thousands of individuals to call on this large number of physicians and hospitals. We may seek to collaborate with a third party to market our drugs or may seek to market and sell our drugs by ourselves. If we seek to collaborate with a third party, we cannot be sure that a collaborative agreement can be reached on terms acceptable to us. If we seek to market and sell our drugs directly, we will need to hire additional personnel skilled in marketing and sales. We cannot be sure that we will be able to acquire, or establish third party relationships to provide, any or all of these marketing and sales capabilities. The establishment of a direct sales force or a contract sales force or a combination direct and contract sales force to market our products will be expensive and time-consuming and could delay any product launch. Further, we can give no assurances that we may be able to maintain a direct and/or contract sales force for any period of time or that our sales efforts will be sufficient to grow our revenues or that our sales efforts will ever lead to profits.

We operate in a highly competitive and rapidly changing industry.

Biopharmaceutical product development is highly competitive and subject to rapid and significant technological advancements. Our success is highly dependent upon our ability to in-license, acquire, develop and obtain regulatory approval for new and innovative products on a cost-effective basis and to market them successfully. In doing so, we face and will continue to face intense competition from a variety of businesses, including large, fully integrated, well-established pharmaceutical companies who already possess a large share of the market, specialty pharmaceutical and biopharmaceutical companies, academic institutions, government agencies and other private and public research institutions in the United States, the European Union and other jurisdictions.

Many of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved drugs than we do. These third parties compete with us in recruiting and retaining

qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Mergers and acquisitions in the biopharmaceutical industry could result in even more resources being concentrated among a small number of our competitors.

Competition may further increase as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Our competitors may succeed in developing, acquiring or licensing, on an exclusive basis, products that are more effective or less costly than any product candidate that we may develop.

Established biopharmaceutical companies may invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make our product candidates less competitive. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Accordingly, our competitors may succeed in obtaining patent protection, discovering, developing, receiving FDA approval for or commercializing drugs before we do, which would have an adverse impact on our business and results of operations.

The availability of our competitors' products could limit the demand and the price we are able to charge for any product candidate we commercialize, if any. The inability to compete with existing or subsequently introduced drugs would harm our business, financial condition and results of operations.

Even if we obtain regulatory approvals to commercialize BXCL501, BXCL701 or our other product candidates, our product candidates may not be accepted by physicians or the medical community in general.

There can be no assurance that BXCL501, BXCL701 and our other product candidates or any other product candidate successfully developed by us, independently or with partners, will be accepted by physicians, hospitals and other health care facilities. BXCL501, BXCL701 and any future product candidates we develop will compete with a number of products manufactured and marketed by major pharmaceutical and biotech companies. The degree of market acceptance of any drugs we develop depends on a number of factors, including:

- our demonstration of the clinical efficacy and safety of BXCL501, BXCL701 and our other product candidates;
- timing of market approval and commercial launch of BXCL501, BXCL701 and our other product candidates;
- the clinical indication(s) for which BXCL501, BXCL701 and our other product candidates are approved;
- product label and package insert requirements;
- advantages and disadvantages of our product candidates compared to existing therapies;
- continued interest in and growth of the market for anti-cancer or anti-agitation drugs;
- strength of sales, marketing, and distribution support;
- product pricing in absolute terms and relative to alternative treatments;
- future changes in health care laws, regulations, and medical policies; and
- availability of reimbursement codes and coverage in select jurisdictions, and future changes to reimbursement policies of government and third-party payors.

Significant uncertainty exists as to the coverage and reimbursement status of any product candidate for which we obtain regulatory approval. In the United States 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. Third-party payors include government health administrative authorities, managed care providers, private health insurers and other organizations.

Healthcare reform measures could hinder or prevent our product candidates' commercial success.

The U.S. government and other governments have shown significant interest in pursuing healthcare reform. Any government-adopted reform measures could adversely impact the pricing of healthcare products and services in the United States or internationally and the amount of reimbursement available from governmental agencies or other third-party payors. The continuing efforts of the U.S. and foreign governments, insurance companies, managed care organizations and other payors of health care services to contain or reduce health care costs may adversely affect our ability to set prices for our products which we believe are fair, and our ability to generate revenues and achieve and maintain profitability.

New laws, regulations and judicial decisions, or new interpretations of existing laws, regulations and decisions, that relate to healthcare availability, methods of delivery or payment for products and services, or sales, marketing or pricing, may limit our potential revenue, and we may need to revise our research and development programs. The pricing and reimbursement environment may change in the future and become more challenging due to several reasons, including policies advanced by the current executive administration in the United States, new healthcare legislation or fiscal challenges faced by government health administration authorities. Specifically, in both the United States and some foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the health care system in ways that could affect our ability to sell our products profitably.

For example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or the PPACA has substantially changed the way healthcare is financed by both government health plans and private insurers, and significantly impacts the pharmaceutical industry. The PPACA contains a number of provisions that are expected to impact our business and operations in ways that may negatively affect our potential revenues in the future. For example, the PPACA imposes a non-deductible excise tax on pharmaceutical manufacturers or importers that sell branded prescription drugs to government programs which we believe will increase the cost of our products. In addition, as part of the PPACA's provisions closing a funding gap that currently exists in the Medicare Part D prescription drug program, we will be required to provide a discount on branded prescription drugs equal to 50% of the government-negotiated price, for drugs provided to certain beneficiaries who fall within the donut hole. Similarly, PPACA increases the level of Medicaid rebates payable by manufacturers of brand-name drugs from 15.1% to 23.1% and requires collection of rebates for drugs paid by Medicaid managed care organizations. The PPACA also includes significant changes to the 340B drug discount program including expansion of the list of eligible covered entities that may purchase drugs under the program. At the same time, the expansion in eligibility for health insurance benefits created under PPACA is expected to increase the number of patients with insurance coverage who may receive our products. While it is too early to predict all the specific effects the PPACA or any future healthcare reform legislation will have on our business, they could have a material adverse effect on our business and financial condition.

Congress periodically adopts legislation like the PPACA and the Medicare Prescription Drug, Improvement and Modernization Act of 2003, that modifies Medicare reimbursement and coverage policies pertaining to prescription drugs. Implementation of these laws is subject to ongoing revision through regulatory and sub regulatory policies. Congress also may consider additional changes to Medicare policies, potentially including Medicare prescription drug policies, as part of ongoing budget negotiations. While the scope of any such legislation is uncertain at this time, there can be no

assurances that future legislation or regulations will not decrease the coverage and price that we may receive for our proposed products. Other third-party payors are increasingly challenging the prices charged for medical products and services. It will be time consuming and expensive for us to go through the process of seeking coverage and reimbursement from Medicare and private payors. Our proposed products may not be considered cost-effective, and coverage and reimbursement may not be available or sufficient to allow us to sell our proposed products on a profitable basis. Further federal and state proposals and health care reforms are likely which could limit the prices that can be charged for the product candidates that we develop and may further limit our commercial opportunities. Our results of operations could be materially adversely affected by proposed healthcare reforms, by the Medicare prescription drug coverage legislation, by the possible effect of such current or future legislation on amounts that private insurers will pay and by other health care reforms that may be enacted or adopted in the future.

In September 2007, the Food and Drug Administration Amendments Act of 2007 was enacted, giving the FDA enhanced post-marketing authority, including the authority to require post-marketing studies and clinical trials, labeling changes based on new safety information, and compliance with risk evaluations and mitigation strategies approved by the FDA. The FDA's exercise of this authority could result in delays or increased costs during product development, clinical trials and regulatory review, increased costs to assure compliance with post-approval regulatory requirements, and potential restrictions on the sale and/or distribution of approved products.

Risks Related to Our Relationship with BioXcel

BioXcel controls the direction of our business, and the concentrated ownership of our common stock will prevent you and other stockholders from influencing significant decisions.

Assuming (i) an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, and (ii) that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, BioXcel will own % of the economic interest and voting power of our outstanding common stock, or % of the economic interest and voting power of our outstanding common stock if the underwriters exercise their option to purchase additional shares in full. As long as BioXcel beneficially controls a majority of the voting power of our outstanding common stock, it will generally be able to determine the outcome of all corporate actions requiring stockholder approval, including the election and removal of directors. Even if BioXcel were to control less than a majority of the voting power of our outstanding common stock, it may influence the outcome of such corporate actions so long as it owns a significant portion of our common stock. If BioXcel continues to hold its shares of our common stock, it could remain our controlling stockholder for an extended period of time or indefinitely.

Approval of commercial terms between us and BioXcel does not preclude the possibility of stockholder litigation, including but not limited to derivative litigation nominally against BioXcel and against its directors and officers and also against us and our directors and officers.

The commercial terms of the Services Agreement, the grid note, dated June 30, 2017, or Grid Note, and the Contribution Agreement that we have entered into with BioXcel have been not been negotiated on behalf of BioXcel by persons consisting solely of disinterested BioXcel directors. Notwithstanding the foregoing, we have no basis for believing that the terms of these agreements will not be in the best interests of both BioXcel and its stockholders and also us and our stockholders. Nonetheless, no assurance can be given that any stockholder of BioXcel will not claim in a lawsuit that such terms in fact are not in the best interests of BioXcel and its stockholders, that the directors and officers of BioXcel breached their fiduciary duties in connection with such agreements and that any disclosures by BioXcel to its stockholders regarding these agreements and the relationship between BioXcel and us did not satisfy applicable requirements. In any such instance, we and our directors and

officers may also be named as defendants and we would have to defend ourselves and our directors and officers. While we will seek indemnification from BioXcel under the terms of these agreements against any damages or other costs, which could be substantial, no such indemnification has yet been agreed to or may be agreed to and be in effect. Further, any such litigation would be time-consuming and would divert focus and resources from the development of our product candidates and our business, including but not limited to possibly delaying our clinical trials due to our management having to spend time and attention on such litigation.

The Distribution may not occur and your investment in our securities may be adversely affected if BioXcel does not distribute the shares of our common stock owned by BioXcel.

BioXcel has advised us that, following the completion of this offering and subject to the expiration of any applicable lock-up periods or other agreements we have or may have with BioXcel, it does not have any near-term plans to distribute the shares of BTI common stock held by BioXcel to the BioXcel stockholders. It is expected that any potential distribution will be taxable to BioXcel and its stockholders. Whether a Distribution is conducted in the future will depend on many factors, including BioXcel's cash position, market capitalization, BioXcel's investment opportunities, taxation to BioXcel and BioXcel's stockholders and the our status and prospects. In addition, the liquidity of the market for our common stock may be constrained for as long as BioXcel continues to hold a significant position in our common stock. Additionally, without a Distribution, there will be limited liquidity in the market for our common stock, which will impact our stockholders and our stock price. A lack of liquidity in the market for our common stock may adversely affect our stock price and therefore, our ability to raise additional funds in the public markets, which may have a material adverse effect on our ability to grow our business.

Following this offering, we will continue to depend on BioXcel to provide us with certain services for our business.

We have operated as a 93% owned subsidiary of BioXcel. Certain administrative services required by us for the operation of our business are currently provided by BioXcel, including services related to insurance and risk management, accounting and human resources. Under the Services Agreement, BioXcel will continue to provide us with various services following the closing of the offering until we are able to build our own capabilities in the transition areas. We believe it is most efficient for BioXcel to provide these services for us to facilitate the efficient operation of our business as we transition to becoming an independent, public company. At our election, or if BioXcel does not or is unable to perform its obligations under the Services Agreement, we will be required to provide these services ourselves or to obtain substitute arrangements with other third parties. We may be unable to provide these services because of financial or other constraints or be unable to implement substitute arrangements on a timely basis on terms that are favorable to us, or at all.

We exercise no control over the activities of BioXcel other than the contractual rights we have pursuant to our Services Agreement and Contribution Agreement. Because of our historical relationship with our parent, our reputation is also tied to BioXcel. We may be subject to reputational harm, or our relationships with existing and potential clients, third-party research organizations, consultants and other business partners could be harmed if BioXcel or any of its affiliates, previously, or in the future, among other things, engages in poor business practices, restructures or files for bankruptcy, becomes subject to litigation or otherwise damages its reputation or business prospects. Any of these events might in turn adversely affect our reputation, revenues and/or business prospects, and may also adversely affect our access to EvolverAI and BioXcel's collaborative services.

We also rely, in part, on BioXcel and access to EvolverAI, a research and development engine created and owned by BioXcel, to identify, research and develop potential product candidates in neuroscience and immuno-oncology. We have the option to enter into a collaborative services agreement with BioXcel, pursuant to which BioXcel shall perform product identification and related services for us utilizing EvolverAI. We have agreed that such agreement will be negotiated in good faith and that such agreement will incorporate reasonable market based terms, including royalty payments on net sales and reasonable development and commercialization milestone payments. In addition, BioXcel has granted us, upon completion of this offering, a first right to negotiate exclusive rights to any additional product candidates in the fields of neuroscience and immuno-oncology that BioXcel may identify on its own and not in connection with BioXcel's provision of services to us under the Services Agreement. This option for first negotiation shall be valid for a period of five years from the date of this offering. If our rights and access to BioXcel's collaborative services and to EvolverAI were to become limited, terminated, or if we were otherwise precluded from conducting research and development using EvolverAI, or if BioXcel is unable to fulfill its obligations under the agreements, such development could materially adversely affect our future operating results, financial condition and prospects. Furthermore, certain individuals conducting services on our behalf are not our employees, and except for remedies available to us under our agreements with BioXcel, we cannot control whether or not they devote sufficient time, skill and resources to our ongoing development programs. We also cannot ensure that BioXcel retains sufficient resources of personnel or otherwise to conduct its operations. BioXcel may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting research and development activities, which could impede their ability to devote appropriate time to our research and development programs. In addition, if we fail to comply with our diligence, payment or other obligations under the agreements, any such collaboration may terminate or we may not be able to successfully negotiate agreements for future product candidates or collaborations with BioXcel.

The ownership by our executive officers and our directors of shares of BioXcel common stock and rights to purchase BioXcel common stock may create, or may create the appearance of, conflicts of interest.

The ownership by our executive officers and our directors of shares of BioXcel common stock, options to purchase shares of BioXcel common stock, or other equity awards of BioXcel may create, or may create the appearance of, conflicts of interest. Our Chief Executive Officer and Vice President—Finance will continue to serve in the same respective roles at BioXcel until the consummation of this offering. Three of our four directors currently serve on both our board of directors and the board of directors of BioXcel. Upon completion of this offering, Sandeep Laumas, M.D. has agreed to step down from BioXcel's board of directors and plans to continue his service on our board of directors. Because of the current (and former, upon the closing) positions of our executive officers and our directors with BioXcel, they own shares of BioXcel common stock, options to purchase shares of BioXcel common stock or other equity awards of BioXcel. Our Chief Executive Officer, Vimal Mehta, Ph.D. and one of our directors, Krishnan Nandabalan, Ph.D., each own approximately 43% and 43%, respectively, of outstanding BioXcel voting stock. Ownership by our executive officers and directors of common stock or options to purchase common stock of BioXcel, or any other equity awards, whether prior to, or following the consummation of this offering, creates, or, may create the appearance of, conflicts of interest when these individuals are faced with decisions that could have different implications for BioXcel than the decisions have for us, including decisions that relate to our Services Agreement, Contribution Agreement, as well as potential agreements relating to future product candidates and AI-related services or collaborations. In connection with the Separation, our chief executive officer has agreed to recuse himself with respect to voting on any matter coming before either BioXcel's or our board of directors related to our relationship with BioXcel, although he will still be permitted to participate in discussions and negotiations. Any perceived conflicts of interest resulting

from investors questioning the independence of our management or the integrity of corporate governance procedures may materially affect our stock price.

Any disputes that arise between us and BioXcel with respect to our past and ongoing relationships could harm our business operations.

Disputes may arise between BioXcel and us in a number of areas relating to our past and ongoing relationships, including:

- intellectual property, technology and business matters, including failure to make required technology transfers and failure to comply with non-compete provisions applicable to BioXcel and us;
- labor, tax, employee benefit, indemnification and other matters arising from the Separation;
- distribution and supply obligations;
- employee retention and recruiting;
- business combinations involving us;
- sales or distributions by BioXcel of all or any portion of its ownership interest in us;
- the nature, quality and pricing of services BioXcel has agreed to provide us; and
- business opportunities that may be attractive to both BioXcel and us.

We have entered into the Services Agreement with BioXcel related to the separation of our business operations from those of BioXcel that contains certain limitations on BioXcel's ability to control various aspects of our business and operations, notwithstanding BioXcel's substantial ownership position following the offering. This agreement may be amended upon agreement between us and BioXcel.

We and our stockholders may not achieve some or all of the expected benefits of the Separation.

Drug development is an expensive and time-consuming process, but we believe the knowledge we have gained while operating as a subsidiary of BioXcel has helped expedite this process. However, in order to realize the value proposition of BTI as a drug development company, we intend to target early stage healthcare and pharmaceutical focused investors, who are interested in investing in drug development companies and who appreciate the risks, rewards and typically longer investment timelines associated with such investments. In order to successfully attract this type of new investment, we believe it is critical that we separate from BioXcel, because we believe that doing so will provide us with some or all of the following benefits:

- improving strategic and operational flexibility, increasing management focus and streamlining decision-making by providing the flexibility to implement our strategic plan and to respond more effectively to different customer needs and the changing economic environment;
- allowing us to adopt the capital structure, investment policy and dividend policy best suited to our financial profile and business needs, without competing for capital with BioXcel's other businesses;
- creating an independent equity structure that will facilitate our ability to affect future acquisitions utilizing our common stock; and
- facilitating incentive compensation arrangements for employees more directly tied to the performance of our business, and enhancing employee hiring and retention by, among other

things, improving the alignment of management and employee incentives with performance and growth objectives of our business.

If we are not successful implementing the Separation, we may not be able to achieve the full strategic and financial benefits we expect to receive, or the benefits may be delayed or not occur at all. Even if we are able to achieve stand-alone, independent status as a drug development company, there can be no assurance that investors and analysts will place a greater value on us as a stand-alone drug development company than as a wholly- or substantially-owned subsidiary of BioXcel.

We may be a "controlled company" within the meaning of the Nasdaq rules and, as a result, may qualify for, and may rely on, exemptions from certain corporate governance requirements that provide protection to stockholders of other companies.

Upon completion of this offering, BioXcel may continue to control a majority of the voting power of our outstanding common stock. As a result, we may be a "controlled company" within the meaning of the corporate governance standards of the Nasdaq rules. Under these rules, a listed company of which more than 50% of the voting power is held by an individual, group or another company is a "controlled company" and may elect not to comply with certain corporate governance requirements.

As a controlled company, we may rely on certain exemptions from the Nasdaq standards that may enable us not to comply with certain Nasdaq corporate governance requirements if BioXcel continues to control a majority of the voting power of our outstanding common stock. Accordingly, you may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of The Nasdaq Capital Market.

The assets and resources that we acquire from BioXcel in the Separation may not be sufficient for us to operate as a stand-alone company, and we may experience difficulty in separating our assets and resources from BioXcel.

Because we have not operated as a stand-alone company in the past, we may have difficulty doing so. We may need to acquire assets and resources in addition to those provided by BioXcel to us, and in connection with the Separation, may also face difficulty in separating our resources from BioXcel's and integrating newly acquired assets into our business. For example, we may need to hire additional personnel to assist with administrative and technical functions, and acquire other office and laboratory equipment for use in the ordinary course operations of our business. If we have difficulty operating as a stand-alone company, fail to acquire assets that we need to run our operations, or incur unexpected costs in separating our business from BioXcel's business or in integrating newly acquired assets into our business, our financial condition and results of operations will be adversely affected.

You may have difficulty evaluating our business because we have no history as a separate company and our historical financial information may not be representative of our results as a separate company.

The historical financial information included in this prospectus does not necessarily reflect the financial condition, results of operations or cash flows that we would have achieved as a separate company during the periods presented or those that we will achieve in the future. Prior to the contribution of our assets from BioXcel, our research and development activities were conducted by BioXcel as part of its broader operations, rather than as an independent division or subsidiary. BioXcel also performed various corporate functions relating to our business. Our historical financial information reflects allocations of corporate expenses from BioXcel for these and similar functions. We believe that these allocations are comparable to the expenses we would have incurred had we operated as a separate company, although we may incur higher expenses as a separate company.

BioXcel may experience challenges with the acquisition, development, enhancement or deployment of technology necessary for EvolverAI.

BioXcel operates in businesses that require sophisticated computer systems and software for data collection, data processing, cloud-based platforms, analytics, statistical projections and forecasting, mobile computing, social media analytics and other applications and technologies. BioXcel seeks to address its technology risks by increasing its reliance on the use of innovations by cross-industry technology leaders and adapt these for their pharmaceutical, specialty-pharma, biotech, biopharmaceutical, diagnostic, medical device and contract research and manufacturing clients. Some of the technologies supporting the industries they serve are changing rapidly and we must continue to adapt to these changes in a timely and effective manner at an acceptable cost. They also must continue to deliver data to its clients in forms that are easy to use while simultaneously providing clear answers to complex questions. There can be no guarantee that we or BioXcel will be able to develop, acquire or integrate new technologies, that these new technologies will meet our and BioXcel's needs or achieve our expected goals, or that we will be able to do so as quickly or cost-effectively as our competitors. Significant technological change could render EvolverAI obsolete. BioXcel's continued success will depend on its ability to adapt to changing technologies, manage and process ever-increasing amounts of data and information and improve the performance, features and reliability of its services in response to changing client and industry demands. BioXcel may experience difficulties that could delay or prevent the successful design, development, testing, and introduction of advanced versions of EvolverAI, limiting our ability to identify new product candidates. New services, or enhancements to existing EvolverAI services, may not adequately meet our requirements. Any of these failures could have a material adverse effect on our operating results and financial condition.

Risks Related to Our Reliance on Third Parties

We are substantially dependent on third parties for the manufacture of our clinical supplies of our product candidates, and we intend to rely on third parties to produce commercial supplies of any approved product candidate. Therefore, our development of our products could be stopped or delayed, and our commercialization of any future product could be stopped or delayed or made less profitable if third party manufacturers fail to obtain approval of the FDA or comparable regulatory authorities or fail to provide us with drug product in sufficient quantities or at acceptable prices.

The manufacture of biotechnology and pharmaceutical products is complex and requires significant expertise, capital investment, process controls and know-how. Common difficulties in biotechnology and pharmaceutical manufacturing may include: sourcing and producing raw materials, transferring technology from chemistry and development activities to production activities, validating initial production designs, scaling manufacturing techniques, improving costs and yields, establishing and maintaining quality controls and stability requirements, eliminating contaminations and operator errors, and maintaining compliance with regulatory requirements. We do not currently have nor do we plan to acquire the infrastructure or capability internally in accordance with cGMP prescribed by the FDA or to produce an adequate supply of compounds to meet future requirements for clinical trials and commercialization of our products. Drug manufacturing facilities are subject to inspection before the FDA will issue an approval to market a new drug product, and all of the manufacturers that we intend to use must adhere to the cGMP regulations prescribed by the FDA.

We expect therefore to rely on third-party manufacturers for clinical supplies of our product candidates that we may develop. These third-party manufacturers will be required to comply with current good manufacturing practices, or GMPs, and other applicable laws and regulations. We will have no control over the ability of these third parties to comply with these requirements, or to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or any other applicable regulatory authorities do not approve the facilities of these third parties for the manufacture of our other product candidates or any products that we may successfully develop, or if it withdraws any such

approval, or if our suppliers or contract manufacturers decide they no longer want to supply or manufacture for us, we may need to find alternative manufacturing facilities, in which case we might not be able to identify manufacturers for clinical or commercial supply on acceptable terms, or at all. Any of these factors would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates and adversely affect our business.

We and/or our third-party manufacturers may be adversely affected by developments outside of our control, and these developments may delay or prevent further manufacturing of our products. Adverse developments may include labor disputes, resource constraints, shipment delays, inventory shortages, lot failures, unexpected sources of contamination, lawsuits related to our manufacturing techniques, equipment used during manufacturing, or composition of matter, unstable political environments, acts of terrorism, war, natural disasters, and other natural and man-made disasters. If BioXcel, we or our third-party manufacturers were to encounter any of the above difficulties, or otherwise fail to comply with contractual obligations, our ability to provide any product for clinical trial or commercial purposes would be jeopardized. This may increase the costs associated with completing our clinical trials and commercial production. Further, production disruptions may cause us to terminate ongoing clinical trials and/or commence new clinical trials at additional expense. We may also have to take inventory write-offs and incur other charges and expenses for products that fail to meet specifications or pass safety inspections. If production difficulties cannot be solved with acceptable costs, expenses, and timeframes, we may be forced to abandon our clinical development and commercialization plans, which could have a material adverse effect on our business, prospects, financial condition, and the value of our securities.

We, or third-party manufacturers on whom we rely, may be unable to successfully scale-up manufacturing of our product candidates in sufficient quality and quantity, which would delay or prevent us from developing our product candidates and commercializing approved products, if any.

In order to conduct clinical trials of our product candidates and commercialize any approved product candidates, we, or our manufacturers, will need to manufacture them in large quantities. We, or our manufacturers, may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If we, or any of our manufacturers, are unable to successfully scale up the manufacture of our product candidates in sufficient quality and quantity, the development, testing, and clinical trials of that product candidate may be delayed or infeasible, and regulatory approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business. If we are unable to obtain or maintain third-party manufacturing for commercial supply of our product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our product candidates successfully.

Our failure to find third party collaborators to assist or share in the costs of product development could materially harm our business, financial condition and results of operations.

Our strategy for the development and commercialization of our proprietary product candidates may include the formation of collaborative arrangements with third parties. We are party to a collaboration research agreement with Nektar Therapeutics, Inc., or Nektar, relating to Nektar's NKTR-214 compound and BXCL 701. Existing and future collaborators have significant discretion in determining the efforts and resources they apply and may not perform their obligations as expected. Potential third party collaborators include biopharmaceutical, pharmaceutical and biotechnology companies, academic institutions and other entities. Third-party collaborators may assist us in:

- funding research, preclinical development, clinical trials and manufacturing;

- seeking and obtaining regulatory approvals; and
- successfully commercializing any future product candidates.

If we are not able to establish further collaboration agreements, we may be required to undertake product development and commercialization at our own expense. Such an undertaking may limit the number of product candidates that we will be able to develop, significantly increase our capital requirements and place additional strain on our internal resources. Our failure to enter into additional collaborations could materially harm our business, financial condition and results of operations.

In addition, our dependence on licensing, collaboration and other agreements with third parties may subject us to a number of risks. These agreements may not be on terms that prove favorable to us and may require us to relinquish certain rights in our product candidates. To the extent we agree to work exclusively with one collaborator in a given area, our opportunities to collaborate with other entities could be curtailed. Lengthy negotiations with potential new collaborators may lead to delays in the research, development or commercialization of product candidates. The decision by our collaborators to pursue alternative technologies or the failure of our collaborators to develop or commercialize successfully any product candidate to which they have obtained rights from us could materially harm our business, financial condition and results of operations.

We rely on third parties to conduct our preclinical and clinical trials. If these third parties do not successfully perform their contractual legal and regulatory duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We have relied upon and plan to continue to rely upon third-party medical institutions, clinical investigators, contract laboratories and other third party CROs to monitor and manage data for our ongoing preclinical and clinical programs. We rely on these parties for execution of our preclinical and clinical trials, and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on the CROs does not relieve us of our regulatory responsibilities. We and our CROs are required to comply with cGCPs, which are regulations and guidelines enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area, or EEA, and comparable foreign regulatory authorities for all of our products in clinical development.

Regulatory authorities enforce these cGCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs fail to comply with applicable cGCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA, the EMA 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 comply with cGCP regulations. In addition, our clinical trials must be conducted with product produced under current good manufacturing practices, or cGMP, regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

If any of our relationships with these third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs or to do so on commercially reasonable terms. In addition, our CROs are not our employees, and except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources to our on-going clinical, nonclinical and preclinical programs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended,

delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed.

Many of the third parties with whom we contract may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other drug development activities that could harm our competitive position. If the third parties conducting our GLP preclinical studies or our clinical trials do not perform their contractual duties or obligations, experience work stoppages, do not meet expected deadlines, terminate their agreements with us or need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised due to their failure to adhere to our clinical trial protocols or to GCPs, or for any other reason, we may need to enter into new arrangements with alternative third parties. Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter similar challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

Risks Related to Our Business and Industry

We will need to increase the size of our organization and the scope of our outside vendor relationships, and we may experience difficulties in managing growth.

As of December 31, 2017, we employed a total of four full-time employees and our parent, BioXcel, has two employees who are leased to us pursuant to the Services Agreement. In addition, we will have access to certain of BioXcel's employees and resources through the various agreements we have entered into with BioXcel. Our current internal departments include finance, research and development and administration. We intend to expand our management team to include an operation ramp up of additional technical staff required to achieve our business objectives. We will need to expand our managerial, operational, technical and scientific, financial and other resources in order to manage our operations and clinical trials, establish independent manufacturing, continue our research and development activities, and commercialize our product candidate. Our management and scientific personnel, systems and facilities currently in place may not be adequate to support our future growth.

Our need to effectively manage our operations, growth and various projects requires that we:

- manage our clinical trials effectively, including our planned clinical trials of BXCL501, BXCL701 and our other product candidates;
- manage our internal development efforts effectively while carrying out our contractual obligations to licensors, contractors and other third parties;
- continue to improve our operational, financial and management controls and reporting systems and procedures; and
- attract and retain sufficient numbers of talented employees.

We may utilize the services of third party vendors to perform tasks including pre-clinical and clinical trial management, statistics and analysis, regulatory affairs, medical advisory, market research, formulation development, chemistry, manufacturing and control activities, other drug development functions, legal, auditing, financial advisory, and investor relations. Our growth strategy may also entail expanding our group of contractors or consultants to implement these and other tasks going forward. Because we rely on numerous consultants, to outsource many key functions of our business, we will

need to be able to effectively manage these consultants to ensure that they successfully carry out their contractual obligations and meet expected deadlines. However, if we are unable to effectively manage our outsourced activities or if the quality or accuracy of the services provided by consultants is compromised for any reason, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for our product candidate or otherwise advance our business. There can be no assurance that we will be able to manage our existing consultants or find other competent outside contractors and consultants on economically reasonable terms, or at all. If we are not able to effectively expand our organization by hiring new employees and expanding our groups of consultants and contractors, we may be unable to successfully implement the tasks necessary to further develop and commercialize our product candidate and, accordingly, may not achieve our research, development and commercialization goals.

We depend on our senior management team, and the loss of one or more of our executive officers or key employees or an inability to attract and retain highly skilled employees could adversely affect our business.

Our success depends largely upon the continued services of our key executive officers, Vimal Mehta, our Chief Executive Officer, President, Secretary and Director and Frank Yocca, our Chief Scientific Officer. We do not maintain "key person" insurance for any of these executive officers or any of our other key employees. We also rely on our leadership team in the areas of research and development, marketing, services and general and administrative functions. From time to time, there may be changes in our executive management and leadership teams resulting from the hiring or departure of executives or other key employees, which could disrupt our business. The replacement of one or more of our executive officers or other key employees would likely involve significant time and costs and may significantly delay or prevent the achievement of our business objectives.

To continue to execute our growth strategy, we also must attract and retain highly skilled personnel. We might not be successful in maintaining our unique culture and continuing to attract and retain qualified personnel. We have from time to time in the past experienced, and we expect to continue to experience in the future, difficulty in hiring and retaining highly skilled personnel with appropriate qualifications. The pool of qualified personnel with SaaS, or experience working with the pharma market is limited overall. In addition, many of the companies with which we compete for experienced personnel have greater resources than we have.

In addition, in making employment decisions, particularly in the internet, biotechnology and high-technology industries, job candidates often consider the value of the stock options or other equity instruments they are to receive in connection with their employment. Volatility in the price of our stock might, therefore, adversely affect our ability to attract or retain highly skilled personnel. Furthermore, the requirement to expense stock options and other equity instruments might discourage us from granting the size or type of stock option or equity awards that job candidates require to join our company. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be severely harmed.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements and insider trading.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with any regulations applicable to us, to provide accurate information to regulatory authorities, to comply with manufacturing standards we have established, to comply with federal and state healthcare fraud and abuse laws and regulations, or to 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, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion,

sales commission, customer incentive programs and other business arrangements. 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. We have adopted a Code of Business Conduct, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risk.

Business interruptions could adversely affect future operations, revenues, and financial conditions, and may increase our costs and expenses.

Our operations, and those of our directors, advisors, contractors, consultants, CROs, and collaborators, could be adversely affected by earthquakes, floods, hurricanes, typhoons, extreme weather conditions, fires, water shortages, power failures, business systems failures, medical epidemics and other natural and man-made disaster or business interruptions. Our phones, electronic devices and computer systems and those of our directors, advisors, contractors, consultants, CROs, and collaborators are vulnerable to damages, theft and accidental loss, negligence, unauthorized access, terrorism, war, electronic and telecommunications failures, and other natural and man-made disasters. Operating as a virtual company, our employees conduct business outside of our headquarters and leased or owned facilities. These locations may be subject to additional security and other risk factors due to the limited control of our employees. If such an event as described above were to occur in the future, it may cause interruptions in our operations, delay research and development programs, clinical trials, regulatory activities, manufacturing and quality assurance activities, sales and marketing activities, hiring, training of employees and persons within associated third parties, and other business activities. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data.

Likewise, we will rely on third parties to manufacture BXCL501 and BXCL701 and conduct clinical trials, and similar events as those described in the prior paragraph relating to their business systems, equipment and facilities could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development and commercialization of our product candidate could be delayed or altogether terminated.

Our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements included in this prospectus.

Our audited financial statements at December 31, 2017 and 2016 and for the years then ended were prepared assuming that we will continue as a going concern.

Primarily as a result of our losses and limited cash balances, the report of our independent registered public accounting firm included elsewhere in this prospectus contains an explanatory paragraph on our financial statements stating there is substantial doubt about our ability to continue as a going concern due to recurring losses from operations and deficiencies in working capital and net capital. Such an opinion could materially limit our ability to raise additional funds through the issuance of new debt or equity securities or otherwise. There is no assurance that sufficient financing will be available when needed to allow us to continue as a going concern. The perception that we may not be able to continue as a going concern may also make it more difficult to operate our business due to concerns about our ability to meet our contractual obligations. Our ability to continue as a going concern is contingent upon, among other factors, the sale of the shares of our common stock in this offering or obtaining alternate financing. We cannot provide any assurance that we will be able to raise additional capital.

If we are unable to secure additional capital, we may be required to curtail our research and development initiatives and take additional measures to reduce costs in order to conserve our cash in amounts sufficient to sustain operations and meet our obligations. These measures could cause significant delays in our clinical and regulatory efforts, which is critical to the realization of our business plan. The accompanying financial statements do not include any adjustments that may be necessary should we be unable to continue as a going concern. It is not possible for us to predict at this time the potential success of our business. The revenue and income potential of our proposed business and operations are currently unknown. If we cannot continue as a viable entity, you may lose some or all of your investment.

Our failure to successfully acquire, develop and market additional product candidates or approved drug products could impair our ability to grow.

As part of our growth strategy, we may evaluate, acquire, license, develop and/or market additional product candidates and technologies. These investments will not constitute a significant portion of our business. However, our internal research capabilities are limited, we may be dependent upon pharmaceutical and biotechnology companies, academic scientists and other researchers to sell or license products or technology to us. The success of this strategy depends partly upon our ability to identify, select and acquire promising pharmaceutical product candidates and products. The process of proposing, negotiating and implementing a license or acquisition of a product candidate or approved product is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of product candidates and approved products. 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. 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 not be able to acquire the rights to additional product candidates on terms that we find acceptable, or at all.

In addition, future acquisitions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- disruption of our business and diversion of our management's and technical personnel's time and attention to develop acquired products or technologies;
- 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.

Any product candidate that we acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to risks of failure typical of pharmaceutical product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities. In addition, we cannot provide assurance that any

products that we develop or approved products that we acquire will be manufactured profitably or achieve market acceptance.

Risks Related to Our Intellectual Property

It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection. If our patent position does not adequately protect our product candidates, others could compete against us more directly, which would harm our business, possibly materially.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our current and future product candidates, the processes used to manufacture them and the methods for using them, as well as successfully defending these patents against third-party challenges. We are the owner of record of patent applications pending in the United States and in certain foreign jurisdictions. We own Patent Cooperation Treaty, or PCT, patent applications relating to our platform technologies covering methods of use and applications of the platform technologies. To date, no patents have been issued to us specifically covering our product candidates, and we cannot be certain that any patents will issue with claims that cover our product candidates. Our ability to stop third parties from making, using, selling, offering to sell or importing our product candidates is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities.

The patent positions of biotechnology and pharmaceutical companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in pharmaceutical patents has emerged to date in the United States or in foreign jurisdictions outside of the United States. Changes in either the patent laws or interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be enforced in the patents that may be issued from the applications we currently or may in the future own or license from third parties. Further, if any patents we obtain or license are deemed invalid and unenforceable, our ability to commercialize or license our technology could be adversely affected.

Others have filed, and in the future are likely to file, patent applications covering products and technologies that are similar, identical or competitive to ours or important to our business. We cannot be certain that any patent application owned by a third party will not have priority over patent applications filed or in-licensed by us, or that we or our licensors will not be involved in interference, opposition, reexamination, review, reissue, post grant review or invalidity proceedings before U.S. or non-U.S. patent offices.

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:

- others may be able to make compounds that are similar to our product candidates, but that are not covered by the claims of our patents;
- we might not have been the first to make the inventions covered by our pending patent applications;
- we might not have been the first to file patent applications for these inventions;
- our pending patent applications may not result in issued patents;
- the claims of our issued patents or patent applications when issued may not cover our products or product candidates;
- any patents that we obtain may not provide us with any competitive advantages;

- any granted patents may be held invalid or unenforceable as a result of legal challenges by third parties; and
- the patents of others may have an adverse effect on our business.

If we fail to comply with our obligations in the agreements under which we may license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose rights that are important to our business.

We may be required to enter into intellectual property license agreements that are important to our business. These license agreements may impose various diligence, milestone payment, royalty and other obligations on us. For example, we may enter into exclusive license agreements with various universities and research institutions, we may be required to use commercially reasonable efforts to engage in various development and commercialization activities with respect to licensed products, and may need to satisfy specified milestone and royalty payment obligations. If we fail to comply with any obligations under our agreements with any of these licensors, we may be subject to termination of the license agreement in whole or in part; increased financial obligations to our licensors or loss of exclusivity in a particular field or territory, in which case our ability to develop or commercialize products covered by the license agreement will be impaired.

In addition, disputes may arise regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our diligence obligations under the license agreement and what activities satisfy those obligations;
- if a third-party expresses interest in an area under a license that we are not pursuing, under the terms of certain of our license agreements, we may be required to sublicense rights in that area to a third party, and that sublicense could harm our business; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

We may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize one or more of our product candidates, which could harm our business significantly.

We may incur substantial costs as a result of litigation or other proceedings relating to patents and other intellectual property rights.

If we choose to commence a proceeding or litigation to prevent another party from infringing our patents, that party will have the right to ask the examiner or court to rule that our patents are invalid or should not be enforced against them. There is a risk that the examiner or court will decide that our patents are not valid and that we do not have the right to stop the other party from using the related inventions. There is also the risk that, even if the validity of our patents is upheld, the examiner or court will refuse to stop the other party on the ground that such other party's activities do not infringe

our rights to such patents. In addition, the U.S. Supreme Court has recently modified some tests used by the U.S. Patent and Trademark Office, or USPTO, in granting patents over the past 20 years, which may decrease the likelihood that we will be able to obtain patents and increase the likelihood of challenge to any patents we obtain or license. Any proceedings or litigation to enforce our intellectual property rights or defend ourselves against claims of infringement of third-party intellectual property rights could be costly and divert the attention of managerial and scientific personnel, regardless of whether such litigation is ultimately resolved in our favor. We may not have sufficient resources to bring these actions to a successful conclusion. Moreover, if we are unable to successfully defend against claims that we have infringed the intellectual property rights of others, we may be prevented from using certain intellectual property and may be liable for damages, which in turn could materially adversely affect our business, financial condition or results of operations.

We may infringe the intellectual property rights of others, which may prevent or delay our product development efforts and stop us from commercializing or increase the costs of commercializing our product candidates.

Our success will depend in part on our ability to operate without infringing the proprietary rights of third parties. We cannot guarantee that our products, or manufacture or use of our product candidates, will not infringe third-party patents. Furthermore, a third party may claim that we are using inventions covered by the third party's patent rights and may go to court to stop us from engaging in our normal operations and activities, including making or selling our product candidates. These lawsuits are costly and could affect our results of operations and divert the attention of managerial and scientific personnel. Some of these third parties may be better capitalized and have more resources than us. There is a risk that a court would decide that we are infringing the third party's patents and would order us to stop the activities covered by the patents. In that event, we may not have a viable way around the patent and may need to halt commercialization of the relevant product candidate. In addition, there is a risk that a court will order us to pay the other party damages for having violated the other party's patents. In addition, we may be obligated to indemnify our licensors and collaborators against certain intellectual property infringement claims brought by third parties, which could require us to expend additional resources. The pharmaceutical and biotechnology industries have produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform.

If we are sued for patent infringement, we would need to demonstrate that our products or methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving invalidity is difficult. For example, in the United States, proving invalidity requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Even if we are successful in these proceedings, we may incur substantial costs and divert management's time and attention in pursuing these proceedings, which could have a material adverse effect on us. If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, which may not be available, defend an infringement action or challenge the validity of the patents in court. Patent litigation is costly and time consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, if we do not obtain a license, develop or obtain non-infringing technology, fail to defend an infringement action successfully or have infringed patents declared invalid, we may incur substantial monetary damages, encounter significant delays in bringing our product candidates to market and be precluded from manufacturing or selling our product candidates.

We cannot be certain that others have not filed patent applications for technology covered by our pending applications, or that we were the first to invent the technology, because:

- some patent applications in the United States may be maintained in secrecy until the patents are issued;

- patent applications in the United States are typically not published until 18 months after the priority date; and
- publications in the scientific literature often lag behind actual discoveries.

Our competitors may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our patent applications, which could further require us to obtain rights to issued patents covering such technologies. If another party has filed USpatent applications on inventions similar to ours that claims priority to any applications filed prior to the priority dates of our applications, we may have to participate in an interference proceeding declared by the USPTO to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful if, unbeknownst to us, the other party had independently arrived at the same or similar inventions prior to our own inventions, resulting in a loss of our U.S. patent position with respect to such inventions. Other countries have similar laws that permit secrecy of patent applications, and may be entitled to priority over our applications in such jurisdictions.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations.

If we are not able to adequately prevent disclosure of trade secrets and other proprietary information, the value of our technology and products could be significantly diminished.

We also rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. Furthermore, any license agreements we enter into in the future may require us to notify, and in some cases license back to the licensor, certain additional proprietary information or intellectual property that we developed using the rights licensed to us under these agreements. Any such licenses back to the licensor could allow our licensors to use that proprietary information or intellectual property in a manner that could harm our business. In addition, others may independently discover our trade secrets and proprietary information. For example, the FDA, as part of its transparency initiative, is currently considering whether to make additional information publicly available on a routine basis, including information that we may consider to be trade secrets or other proprietary information, and it is not clear at the present time how the FDA's disclosure policies may change in the future, if at all. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed alleged trade secrets.

As is common in the biotechnology and pharmaceutical industries, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants or independent contractors 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. If we fail in defending any such claims, in addition to paying monetary damages, we could lose valuable intellectual property rights or personnel, which could adversely impact our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Our intellectual property may not be sufficient to protect our products from competition, which may negatively affect our business as well as limit our partnership or acquisition appeal.

We may be subject to competition despite the existence of intellectual property we license or own. We can give no assurances that our intellectual property claims will be sufficient to prevent third parties from designing around patents we own or license and developing and commercializing competitive products. The existence of competitive products that avoid our intellectual property could materially adversely affect our operating results and financial condition. Furthermore, limitations, or perceived limitations, in our intellectual property may limit the interest of third parties to partner, collaborate or otherwise transact with us, if third parties perceive a higher than acceptable risk to commercialization of our products or future products.

Our drug re-innovation approach involves the filing of patent applications covering new methods of use and/or new formulations of previously known, studied and/or marketed drugs. Although the protection afforded by our patent applications may be significant with respect to BXCL501 and BXCL701, when looking at our patents' ability to block competition, the protection offered by our patents may be, to some extent, more limited than the protection provided by patents claiming the composition of matter of entirely new chemical structures previously unknown. If a competitor were able to successfully design around any method of use and formulation patents we may have in the future, our business and competitive advantage could be significantly affected.

We may elect to sue a third party, or otherwise make a claim, alleging infringement or other violation of patents, trademarks, trade dress, copyrights, trade secrets, domain names or other intellectual property rights that we either own or license from BioXcel. If we do not prevail in enforcing our intellectual property rights in this type of litigation, we may be subject to:

- paying monetary damages related to the legal expenses of the third party;
- facing additional competition that may have a significant adverse effect on our product pricing, market share, business operations, financial condition, and the commercial viability of our products; and
- restructuring our company or delaying or terminating select business opportunities, including, but not limited to, research and development, clinical trial, and commercialization activities, due to a potential deterioration of our financial condition or market competitiveness.

A third party may also challenge the validity, enforceability or scope of the intellectual property rights that we license or own; and, the result of these challenges may narrow the scope or claims of or invalidate patents that are integral to our product candidates in the future. There can be no assurance that we will be able to successfully defend patents we own in an action against third parties due to the unpredictability of litigation and the high costs associated with intellectual property litigation, amongst other factors.

Intellectual property rights and enforcement may be less extensive in jurisdictions outside of the United States; thus, we may not be able to protect our intellectual property and third parties may be able to market competitive products that may use some or all of our intellectual property.

Changes to patent law, including the Leahy-Smith America Invests Act, AIA or Leahy-Smith Act, of 2011 and the Patent Reform Act of 2009 and other future article of legislation, may substantially change the regulations and procedures surrounding patent applications, issuance of patents, and

prosecution of patents. We can give no assurances that our patents and those of our licensor, BioXcel, can be defended or will protect us against future intellectual property challenges, particularly as they pertain to changes in patent law and future patent law interpretations.

In addition, enforcing and maintaining our intellectual property protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by the U.S. Patent and Trademark Office, courts and foreign government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Risks Related to Owning our Common Stock and this Offering

An active trading market for our common stock may not develop, and you may not be able to sell your common stock at or above the initial public offering price.

Prior to the consummation of this offering, there has been no public market for our common stock. An active trading market for shares of our common stock may never develop or be sustained following this offering. If an active trading market does not develop, you may have difficulty selling your shares of common stock at an attractive price, or at all. The price for our common stock in this offering will be determined by negotiations between us and the underwriters, and it may not be indicative of prices that will prevail in the open market following this offering. Consequently, you may not be able to sell your common stock at or above the initial public offering price or at any other price or at the time that you would like to sell. An inactive market may also impair our ability to raise capital by selling our common stock, and it may impair our ability to attract and motivate our employees through equity incentive awards and our ability to acquire other companies, products or technologies by using our common stock as consideration.

The price of our common stock may fluctuate substantially.

You should consider an investment in our common stock to be risky, and you should invest in our common stock only if you can withstand a significant loss and wide fluctuations in the market value of your investment. Some factors that may cause the market price of our common stock to fluctuate, in addition to the other risks mentioned in this "Risk Factors" section and elsewhere in this prospectus, are:

- sale of our common stock by our stockholders, executives, and directors;
- volatility and limitations in trading volumes of our shares of common stock;
- our ability to obtain financings to conduct and complete research and development activities including, but not limited to, our clinical trials, and other business activities;
- possible delays in the expected recognition of revenue due to lengthy and sometimes unpredictable sales timelines;
- the timing and success of introductions of new applications and services by us or our competitors or any other change in the competitive dynamics of our industry, including consolidation among competitors, customers or strategic partners;
- network outages or security breaches;
- our ability to attract new customers;
- customer renewal rates and the timing and terms of customer renewals;
- our ability to secure resources and the necessary personnel to conduct clinical trials on our desired schedule;

- commencement, enrollment or results of our clinical trials for our product candidates or any future clinical trials we may conduct;
- changes in the development status of our product candidates;
- any delays or adverse developments or perceived adverse developments with respect to the FDA's review of our planned preclinical and clinical trials;
- any delay in our submission for studies or product approvals or adverse regulatory decisions, including failure to receive regulatory approval for our product candidates;
- unanticipated safety concerns related to the use of our product candidates;
- failures to meet external expectations or management guidance;
- changes in our capital structure or dividend policy, future issuances of securities, sales of large blocks of common stock by our stockholders;
- our cash position;
- announcements and events surrounding financing efforts, including debt and equity securities;
- our inability to enter into new markets or develop new products;
- reputational issues;
- competition from existing technologies and products or new technologies and products that may emerge;
- announcements of acquisitions, partnerships, collaborations, joint ventures, new products, capital commitments, or other events by us or our competitors;
- changes in general economic, political and market conditions in or any of the regions in which we conduct our business;
- changes in industry conditions or perceptions;
- changes in valuations of similar companies or groups of companies;
- analyst research reports, recommendation and changes in recommendations, price targets, and withdrawals of coverage;
- departures and additions of key personnel;
- disputes and litigations related to intellectual properties, proprietary rights, and contractual obligations;
- changes in applicable laws, rules, regulations, or accounting practices and other dynamics; and
- other events or factors, many of which may be out of our control.

In addition, if the market for stocks in our industry or industries related to our industry, or the stock market in general, experiences a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, financial condition and results of operations. If any of the foregoing occurs, it could cause our stock price to fall and may expose us to lawsuits that, even if unsuccessful, could be costly to defend and a distraction to management.

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

Our management will have broad discretion in the application of the net proceeds from this initial public offering, including for any of the currently intended purposes described in the section entitled "Use of Proceeds." Because of the number and variability of factors that will determine our use of the

net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management may not apply our cash from this offering in ways that ultimately increase the value of any investment in our securities or enhance shareholder value. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders. If we do not invest or apply our cash in ways that enhance shareholder value, we may fail to achieve expected financial results, which may result in a decline in the price of our shares of common stock, and, therefore, may negatively impact our ability to raise capital, invest in or expand our business, acquire additional products or licenses, commercialize our products, or continue our operations.

We may acquire other companies or technologies, which could divert our management's attention, result in dilution to our stockholders and otherwise disrupt our operations and adversely affect our operating results.

We may in the future seek to acquire or invest in businesses, applications and services or technologies that we believe could complement or expand our services, enhance our technical capabilities or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated.

In addition, we do not have any experience in acquiring other businesses. If we acquire additional businesses, we may not be able to integrate the acquired personnel, operations and technologies successfully, or effectively manage the combined business following the acquisition. We also may not achieve the anticipated benefits from the acquired business due to a number of factors, including:

- inability to integrate or benefit from acquired technologies or services in a profitable manner;
- unanticipated costs or liabilities associated with the acquisition;
- difficulty integrating the accounting systems, operations and personnel of the acquired business;
- difficulties and additional expenses associated with supporting legacy products and hosting infrastructure of the acquired business;
- difficulty converting the customers of the acquired business onto our platform and contract terms, including disparities in the revenue, licensing, support or professional services model of the acquired company;
- diversion of management's attention from other business concerns;
- adverse effects to our existing business relationships with business partners and customers as a result of the acquisition;
- the potential loss of key employees;
- use of resources that are needed in other parts of our business; and
- use of substantial portions of our available cash to consummate the acquisition.

In addition, a significant portion of the purchase price of companies we acquire may be allocated to acquired goodwill and other intangible assets, which must be assessed for impairment at least annually. In the future, if our acquisitions do not yield expected returns, we may be required to take charges to our operating results based on this impairment assessment process, which could adversely affect our results of operations.

Acquisitions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results. In addition, if an acquired business fails to meet our expectations, our operating results, business and financial position may suffer.

Market and economic conditions may negatively impact our business, financial condition and share price.

Concerns over inflation, energy costs, geopolitical issues, the U.S. mortgage market and a declining real estate market, unstable global credit markets and financial conditions, and volatile oil prices have led to periods of significant economic instability, diminished liquidity and credit availability, declines in consumer confidence and discretionary spending, diminished expectations for the global economy and expectations of slower global economic growth going forward, increased unemployment rates, and increased credit defaults in recent years. Our general business strategy may be adversely affected by any such economic downturns, volatile business environments and continued unstable or unpredictable economic and market conditions. If these conditions continue to deteriorate or do not improve, it may make any necessary debt or equity financing more difficult to complete, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance, and share price and could require us to delay or abandon development or commercialization plans.

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

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us, our business, our markets and our competitors. We do not control these analysts. If securities analysts do not cover our common stock after the closing of this offering, the lack of research coverage may adversely affect the market price of our common stock. Furthermore, if one or more of the analysts who do cover us downgrade our stock or if those analysts issue other unfavorable commentary about us or our business, our stock price would likely decline. If one or more of these analysts cease coverage of us or fails to regularly publish reports on us, we could lose visibility in the market and interest in our stock could decrease, which in turn could cause our stock price or trading volume to decline and may also impair our ability to expand our business with existing customers and attract new customers.

Because certain of our stockholders control a significant number of shares of our common stock, they may have effective control over actions requiring stockholder approval.

Following this offering, our directors, executive officers and principal stockholders, and their respective affiliates, will beneficially own approximately % of our outstanding shares of common stock. As a result, these stockholders, acting together, would have the ability to control the outcome of matters submitted to our stockholders for approval, including the election of directors and any merger, consolidation or sale of all or substantially all of our assets. In addition, these stockholders, acting together, would have the ability to control the management and affairs of our company. Accordingly, this concentration of ownership might harm the market price of our common stock by:

- delaying, deferring or preventing a change in corporate control;
- impeding a merger, consolidation, takeover or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

You will incur immediate dilution as a result of this offering.

If you purchase common stock in this offering, you will pay more for your shares than the net tangible book value of your shares. As a result, you will incur immediate dilution of $ per share, representing the difference between the assumed initial public offering price of $ per share (the midpoint of the range on the cover of this prospectus) and our estimated net tangible book value per share as of December 31, 2017 of $. Accordingly, should we be liquidated at our book value, you would not receive the full amount of your investment.

Future sales and issuances of our common stock could result in additional dilution of the percentage ownership of our stockholders and could cause our share price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations, including increased marketing, hiring new personnel, commercializing our products, and continuing activities as an operating public company. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. We may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities in more than one transaction, investors may be materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights superior to our existing stockholders.

We do not intend to pay cash dividends on our shares of common stock so any returns will be limited to the value of our shares.

We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the increase, if any, of our share price.

We are an "emerging growth company" and will be able to avail ourselves of reduced disclosure requirements applicable to emerging growth companies, which could make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. In addition, Section 107 of the JOBS Act also provides that an "emerging growth company" can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act, for complying with new or revised accounting standards. In other words, an "emerging growth company" can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We are not electing to delay such adoption of new or revised accounting standards, and as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We may take advantage of these reporting exemptions until we are no longer an "emerging growth company." We will remain an "emerging growth company" until the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission.

We may be at risk of securities class action litigation.

We may be at risk of securities class action litigation. In the past, biotechnology and pharmaceutical companies have experienced significant stock price volatility, particularly when associated with binary events such as clinical trials and product approvals. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business and results in a decline in the market price of our common stock.

There is no guarantee that our common stock will be listed on Nasdaq.

We have applied to list our shares of common stock on The Nasdaq Capital Market. Upon completion of this offering, we believe that we will satisfy the listing requirements and expect that our common stock will be listed on The Nasdaq Capital Market. Such listing, however, is not guaranteed. If the application is not approved, we will seek to have our common stock quoted on the OTCQB maintained by the OTC Markets Group, Inc. Even if such listing is approved, there can be no assurance any broker will be interested in trading our common stock. Therefore, it may be difficult to sell any shares you purchase in this offering if you desire or need to sell them. Our lead underwriter, Barclays, is not obligated to make a market in our common stock, and even after making a market, can discontinue market making at any time without notice. Neither we nor the underwriters can provide any assurance that an active and liquid trading market in our common stock will develop or, if developed, that the market will continue.

Our certificate of incorporation and our bylaws, and Delaware law may have anti-takeover effects that could discourage, delay or prevent a change in control, which may cause our stock price to decline.

Our amended and restated certificate of incorporation and our amended and restated bylaws, to be effective upon completion of the offering, and Delaware law could make it more difficult for a third party to acquire us, even if closing such a transaction would be beneficial to our stockholders. Upon consummation of this offering, we will be authorized to issue up to shares of preferred stock. This preferred stock may be issued in one or more series, the terms of which may be determined at the time of issuance by our board of directors without further action by stockholders. The terms of any series of preferred stock may include voting rights (including the right to vote as a series on particular matters), preferences as to dividend, liquidation, conversion and redemption rights and sinking fund provisions. No preferred stock is currently outstanding. The issuance of any preferred stock could materially adversely affect the rights of the holders of our common stock, and therefore, reduce the value of our common stock and the Notes. In particular, specific rights granted to future holders of preferred stock could be used to restrict our ability to merge with, or sell our assets to, a third party and thereby preserve control by the present management.

Provisions of our amended and restated certificate of incorporation and our amended and restated bylaws and Delaware law also could have the effect of discouraging potential acquisition proposals or making a tender offer or delaying or preventing a change in control, including changes a stockholder might consider favorable. Such provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. In particular, the certificate of incorporation and bylaws and Delaware law, as applicable, among other things:

- provide the board of directors with the ability to alter the bylaws without stockholder approval;
- place limitations on the removal of directors;
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings; and
- provide that vacancies on the board of directors may be filled by a majority of directors in office, although less than a quorum.

Financial reporting obligations of being a public company in the United States are expensive and time-consuming, and our management will be required to devote substantial time to compliance matters.

As a publicly traded company that is separate from BioXcel, we will incur significant additional legal, accounting and other expenses that we did not incur as a privately held subsidiary of BioXcel. The obligations of being a public company in the United States require significant expenditures and will place significant demands on our management and other personnel, including costs resulting from public company reporting obligations under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the rules and regulations regarding corporate governance practices, including those under the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform

and Consumer Protection Act, or the Dodd-Frank Act, and the listing requirements of the stock exchange on which our securities are listed. These rules require the establishment and maintenance of effective disclosure and financial controls and procedures, internal control over financial reporting and changes in corporate governance practices, among many other complex rules that are often difficult to implement, monitor and maintain compliance with. Moreover, despite recent reforms made possible by the JOBS Act, the reporting requirements, rules, and regulations will make some activities more time-consuming and costly, particularly after we are no longer an "emerging growth company." In addition, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage that we had through BioXcel. Our management and other personnel will need to devote a substantial amount of time to ensure that we comply with all of these requirements and to keep pace with new regulations, otherwise we may fall out of compliance and risk becoming subject to litigation or being delisted, among other potential problems.

If we fail to comply with the rules under the Sarbanes-Oxley Act of 2002 related to accounting controls and procedures in the future, or, if we discover additional material weaknesses and other deficiencies in our internal control and accounting procedures, our stock price could decline significantly and raising capital could be more difficult. Our management determined that our disclosure controls and procedures and internal controls were ineffective as of December 31, 2017 and 2016 and if they continue to be ineffective could result in material misstatements in our financial statements.

If we fail to comply with the rules under the Sarbanes-Oxley Act related to disclosure controls and procedures in the future, or, if we discover material weaknesses and other deficiencies in our internal control and accounting procedures, our stock price could decline significantly and raising capital could be more difficult. Section 404 of the Sarbanes-Oxley Act requires annual management assessments of the effectiveness of our internal control over financial reporting. In connection with the audit of our consolidated financial statements for the years ended December 31, 2017 and 2016, our management concluded that the Company had material weaknesses in its internal controls because we did not have adequately designed internal controls to ensure the timely preparation and review of the accounting for certain complex, non-routine transactions by those with appropriate technical expertise, which was necessary to provide reasonable assurance that the Company's consolidated financial statements and related disclosures would be prepared in accordance with generally accepted accounting principles in the United States of America. In addition, we did not have adequately designed and documented financial close and management review controls to properly detect and prevent certain accounting errors and omitted disclosures in the financial statements and related footnotes. Upon completion of this offering, we intend to invest as soon as practicable in resources to create a larger finance function with additional personnel to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If additional material weaknesses or significant deficiencies are discovered or if we otherwise fail to achieve and maintain the adequacy of our internal control, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act. Moreover, effective internal controls are necessary for us to produce reliable financial reports and are important to helping prevent financial fraud. If we cannot provide reliable financial reports or prevent fraud, our business and operating results could be harmed, investors could lose confidence in our reported financial information, and the trading price of our common stock could drop significantly.

Comprehensive tax reform bills could adversely affect our business and financial condition.

The U.S. government recently enacted comprehensive federal income tax legislation that includes significant changes to the taxation of business entities. These changes include, among others, a permanent reduction to the corporate income tax rate. Notwithstanding the reduction in the corporate income tax rate, the overall impact of this tax reform is uncertain, and our business and financial condition could be adversely affected. This prospectus does not discuss any such tax legislation or the manner in which it might affect purchasers of our common stock. We urge our stockholders to consult with their legal and tax advisors with respect to any such legislation and the potential tax consequences of investing in our common stock.

INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. You should not place undue reliance on these forward-looking statements. All statements other than statements of historical facts contained in this prospectus are forward-looking statements. The forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. In some cases, you can identify these forward-looking statements by terms such as "anticipate," "believe," "continue," "could," "depends," "estimate," "expects," "intend," "may," "ongoing," "plan," "potential," "predict," "project," "should," "will," "would" or the negative of those terms or other similar expressions, although not all forward-looking statements contain those words. We have based these forward-looking statements on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, strategy, short- and long-term business operations and objectives, and financial needs. These forward-looking statements include, but are not limited to, statements concerning the following:

- our plans to initiate clinical trials BXCL501, BXCL701 and our other product candidates;
- our plans for 505(b)(2) regulatory path approval;
- our plans to research, develop and commercialize our current and future product candidates;
- our plans to seek to enter into collaborations for the development and commercialization of certain product candidates;
- the potential benefits of any future collaboration;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- the rate and degree of market acceptance and clinical utility of any products for which we receive marketing approval;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our intellectual property position and strategy;
- our estimates regarding expenses, future revenue, capital requirements and need for additional financing;
- developments relating to our competitors and our industry;
- the impact of government laws and regulations; and
- risks associated with our relationship with BioXcel.

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

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected

in the forward-looking statements will be achieved or occur. Moreover, except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

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

INDUSTRY AND MARKET DATA

This prospectus contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. We obtained the industry and market data in this prospectus from our own research as well as from industry and general publications, surveys and studies conducted by third parties. This data involves a number of assumptions and limitations and contains projections and estimates of the future performance of the industries in which we operate that are subject to a high degree of uncertainty, including those discussed in "Risk Factors". We caution you not to give undue weight to such projections, assumptions and estimates. Further, industry and general publications, studies and surveys generally state that they have been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that these publications, studies and surveys are reliable, we have not independently verified the data contained in them. In addition, while we believe that the results and estimates from our internal research are reliable, such results and estimates have not been verified by any independent source.

USE OF PROCEEDS

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

We intend to use the net proceeds from this offering as follows:

- approximately $ million to fund BXCL501 through Phase 2 clinical development and potentially one registration trial;
- approximately $ million to fund BXCL701 through Phase 2 clinical development;
- $ million to be reimbursed to BioXcel pursuant to the Contribution Agreement;
- $ million to be repaid to BioXcel purusant to the Services Agreement and Grid Note; and
- the balance for working capital and other general corporate purposes.

A $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease the net proceeds from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions.

We believe that the net proceeds from this offering and our existing cash, cash equivalents and investments will be sufficient to fund our current operations through . We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. We believe the amount of net proceeds from this offering currently allocated to BXCL501 and BXCL701 will be sufficient to fund those programs through Phase 2 clinical development. We will need to raise substantial additional funds to complete registration trials for both BXCL501 and BXCL701 and before we can expect to commercialize any products, if approved. As of the date of this prospectus, we believe we will need approximately $25 million and $40 million to complete registration trials for each indication of BXCL501 and BXCL701, respectively, assuming no accelerated approval pathways are received. We may satisfy our future cash needs through the sale of equity securities, debt financings, working capital lines of credit, corporate collaborations or license agreements, grant funding, interest income earned on invested cash balances or a combination of one or more of these sources. The amount and timing of our actual expenditures will depend upon numerous factors, including the status and results of our planned Phase 2 PoC open label clinical trials in 2018 for both BXCL501 and BXCL701. Furthermore, we anticipate that we will need to secure additional funding for the further development of BXCL501 and BXCL701, and for the development of any of our other product candidates.

This expected use of the net proceeds from this offering, our existing cash and cash equivalents and the amounts we believe we will need to complete registration trials for BXCL501 and BXCL701 represents our intentions based upon our current plans, financial condition and business conditions. Predicting the cost necessary to develop product candidates can be difficult and the amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development and commercialization efforts, the status of and results from clinical trials, any collaborations that we may enter into with third parties for our product candidates and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering and our existing cash and cash equivalents.

In the ordinary course of our business, we expect to from time to time evaluate the acquisition of, investment in or in-license of complementary products, technologies or businesses, and we could use a portion of the net proceeds from this offering for such activities. We currently do not have any agreements, arrangements or commitments with respect to any potential acquisition, investment or license.

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

In connection with the Services Agreement, we entered into the Grid Note with BioXcel. As of December 31, 2017, we have drawn an amount of $371,000 under the Grid Note. The Grid Note is payable upon the earlier of (i) the completion of this offering and (ii) December 31, 2018, together with interest on the unpaid balance of each advance made under the Grid Note, which shall accrue at a rate per annum equal to the applicable federal rate for short-term loans as of the date hereof, in each case calculated based on a 365-day year and actual days elapsed. We have also agreed to reimburse BioXcel for its contributed services and support to us in connection with our organization and development prior to the date of the Grid Note in the amount of $562,000 of which $122,000 has been repaid as of December 31, 2017 which amount shall be payable upon the earlier of (i) thirty days after the completion of this offering and (ii) December 31, 2018. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Separation and Shared Services Agreement with BioXcel" for additional information.

DIVIDEND POLICY

We have never paid or declared any cash dividends on our common stock, and we do not anticipate paying any cash dividends on our common stock in the foreseeable future. We intend to retain all available funds and any future earnings to fund the development and expansion of our business. Any future determination to pay dividends will be at the discretion of our board of directors and will depend upon a number of factors, including our results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law and other factors our board of directors deems relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2017:

- on an actual basis;
- on a pro forma basis to reflect the sale of 1,196 shares of common stock, at a price of $1,629.45 per share in January and February 2018;
- on a pro forma as adjusted basis to give further effect to our issuance and sale of shares of our common stock included in the shares of common stock being sold in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and our estimated offering expenses.

	December 31, 2017		
(in thousands, except share and per share data)	Actual	Pro Forma (unaudited)	Pro Forma, As Adjusted[1] (unaudited)
Cash	$ 887	$	$
Short term note payable to related party			
Stockholders' equity:			
Preferred stock, par value $0.001 per share; no shares authorized, issued or outstanding, actual and pro forma; shares authorized and no shares issued or outstanding, pro forma as adjusted	—	—	—
Common stock, par value $0.001 per share; 100,000 shares authorized, 41,804 shares issued and outstanding, actual; shares authorized, shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted			
Additional paid-in capital	3,468		
Accumulated deficit	(4,450)		
Total stockholders' deficit	(982)		
Total capitalization	$ (982)	$	$

1 A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash, total shareholders' equity and total capitalization by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions. An increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash, total shareholders' equity and total capitalization by $ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions.

DILUTION

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

As of December 31, 2017 we had a historical net tangible book value (deficit) of $, or $( ) per share of common stock, based on shares of common stock outstanding at December 31, 2017. Our historical net tangible book value per share is the amount of our total tangible assets less our total liabilities at December 31, 2017, divided by the number of shares of common stock outstanding at December 31, 2017.

Our pro forma net tangible book value as of December 31, 2017 was $, or $ per share of common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, after giving effect to the sale of 1,196 shares of common stock, at a price of $1,629.45 per share in January and February 2018.

After giving further effect to the sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the estimated offering price range set forth on the cover page of this prospectus, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value at December 31, 2017 would have been $ million, or $ per share of common stock. This represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to existing stockholders and immediate dilution of $ per share to new investors purchasing shares of common stock in this offering.

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

Assumed initial public offering price per share		$
Pro forma net tangible book value per share as of December 31, 2017	$	
Increase in pro forma as adjusted net tangible book value per share attributable to new investors in this offering		
Pro forma as adjusted net tangible book value per share immediately after this offering		
Dilution per share to new investors in this offering		$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value after this offering by $ per share and the dilution to new investors purchasing common stock in this offering by $ per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discount and commissions. An increase of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase our pro forma as adjusted net tangible book value after this offering by $ per share and decrease the dilution to new investors purchasing common stock in this offering by $ per share, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions. A decrease of 1,000,000 shares in the number of shares offered by us would decrease the pro forma as adjusted net tangible book value after this offering by $ per share and increase the dilution to new investors purchasing common stock in this offering by $ per share, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions.

If the underwriters exercise their option to purchase additional shares in full, the pro forma as adjusted net tangible book value per share after giving effect to the offering would be $ per share. This represents an increase in pro forma as adjusted net tangible book value of $ per share to existing stockholders and dilution in pro forma as adjusted net tangible book value of $ per share to new investors.

The following table summarizes, on the pro forma as adjusted basis described above, the total number of shares of common stock purchased from us, the total consideration paid or to be paid, and the average price per share paid or to be paid by existing shareholders and by new investors in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percentage	Amount	Percentage	
Existing shareholders		%	$	%	$
New investors					$
Total		%	$	%	

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. An increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming no change in the assumed initial public offering price.

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

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

SELECTED FINANCIAL DATA

The following table sets forth our selected financial data as of the dates and for the periods indicated. We have derived the statement of operations data for the years ended December 31, 2017 and 2016 from our audited financial statements included elsewhere in this prospectus. The following summary financial data should be read with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes and other information included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results to be expected in future periods.

Our historical results of operations presented below may not be reflective of our financial position, results of operations and cash flows had we operated as a stand-alone public company during all periods presented. Prior to June 30, 2017, BTI operated as part of BioXcel and not as a separate stand-alone entity. Our financial statement prior to June 30, 2017 have been prepared on a "carve-out" basis from the financial statements of BioXcel to represent our financial position and performance as if we had existed on a stand-alone basis during each of the fiscal years presented in the financial statements. The financial information for the period beginning January 1, 2017 through June 30, 2017 have been carved out of the financial statements of BioXcel. Our financial information for the period beginning July 1, 2017 through December 31, 2017 have been prepared as if we are standalone entity. These results reflect amounts specifically attributable to our business, including the costs BioXcel incurred for the assets that were contributed to us by our parent under the Contribution Agreement and the Services Agreement. The agreements provide us with certain general and administrative and development support services that became effective June 30, 2017. However, during the carve-out period, consistent with accounting regulations, we have assumed that we were a separate business within BioXcel and we have reflected the related assets, liabilities and expenses in our results for periods prior to and post incorporation. We believe that such allocations have been made on a reasonable basis, but may not necessarily be indicative of all of the costs that would have been incurred if we had operated on a standalone basis.

Statement of Operations Data:

(in thousands, except share and per share data)

	Years Ended December 31,	
	2017	2016
Revenues	$ —	$ —
Operating costs and expenses		
Research and development	2,690	1,399
General and administrative	1,847	721
Total operating expenses	4,537	2,120
Loss from operations	(4,537)	—
Other expense		
Interest expense	(2)	—
Net loss	$ (4,539)	$ (2,120)
Net loss per share—basic and diluted	$ (111.07)	$ (53.00)
Weighted average shares outstanding—basic and diluted[1]	40,865	40,000

1 See Note 3 to our financial statements for an explanation of the method used to compute basic and diluted net loss per share.

Balance Sheet Data:

(in thousands)

	December 31,	
	2017	2016
Cash	$ 887	$ —
Working capital deficit	(1,447)	(329)
Total assets	1,355	7
Total liabilities	2,337	331
Total net Parent investment	—	(324)
Accumulated deficit	(4,450)	—
Total liabilities and stockholders' deficit/net Parent investment	$ 1,355	$ 7

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

You should read the following discussion and analysis of our financial condition and plan of operations together with "Selected Financial Data" and our financial statements and the related notes appearing elsewhere in this prospectus. In addition to historical information, this discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled "Risk Factors" included elsewhere in this prospectus. All amounts in this report are in U.S. dollars, unless otherwise noted.

Overview

We are a clinical stage biopharmaceutical company focused on drug development that utilizes novel artificial intelligence, or AI, to identify the next wave of medicines across neuroscience and immuno-oncology. Our drug re-innovation approach leverages existing approved drugs and/or clinically validated product candidates together with big data and proprietary machine learning algorithms to identify new therapeutic indices. We believe that this differentiated approach has the potential to reduce the cost and time of drug development in diseases with substantial unmet medical need. Our two most advanced clinical development programs are BXCL501, a sublingual thin film formulation of the a_{2a} adrenergic receptor agonist dexmedetomidine, or Dex, for acute treatment of agitation resulting from neurological and psychiatric disorders, and BXCL701, an immuno-oncology agent for treatment of a rare form of prostate cancer and pancreatic cancer. We initiated a Phase 1b pharmacokinetic/pharmacodynamic, or PK/PD, safety study using the IV formulation of Dex in mild probable AD in December 2017 and we plan to initiate a Phase 1b PK/PD safety study using the IV formulation of Dex in schizophrenia patients in the first half of 2018. We expect to report data from both studies by the second half of 2018. We also intend to commence Phase 2 proof of concept, or PoC, open label clinical trials in 2018 for both programs. We expect that a data readout from the planned Phase 2 PoC open label clinical trials for the BXCL501 program will be available by the end of 2018. We intend to initiate a bridging bioavailability, or BA, and bioequivalence, or BE, study for the sublingual thin film formulation in the second half of 2018 that, if successful, could potentially lead to the start of a registration trial in the first half of 2019. Preliminary data from the planned Phase 2 PoC clinical trials of BXCL701 will be available in the first half of 2019. We also acquired the rights to two other product candidates, BXCL502 and BXCL702, which together with BXCL501 and BXCL701 collectively represent the "BTI Business."

We were formed to develop first-in-class, high value therapeutics by leveraging EvolverAI, a research and development engine created and owned by our parent, BioXcel Corporation, or BioXcel. We believe the combination of our therapeutic area expertise, our ability to generate product candidates through our exclusive collaborative relationship with BioXcel in the areas of neuroscience and immuno-oncology gives us a significant competitive advantage. EvolverAI was developed over the last decade and integrates millions of fragmented data points using artificial intelligence and proprietary machine learning algorithms. After evaluating multiple product candidates using EvolverAI, we selected our lead programs because our analysis indicated these drugs may have utility in new therapeutic indices where there is substantial unmet medical needs and limited competition. By focusing on clinical candidates with relevant human data, we believe our approach will help us design more efficient clinical trials, thereby accelerating our product candidates time to market. We retain global development and commercialization rights to these two programs.

To date, we have not generated any revenue, we have incurred net losses and all of our operations have been financed by BioXcel and sales of our common stock. Our net losses were approximately $4.5 million and $2.1 million for the years ended December 31, 2017 and 2016, respectively.

Our net losses have resulted from costs incurred in developing the drugs in our pipeline, planning, preparing and conducting clinical trials and general and administrative activities associated with our operations. We expect to continue to incur significant expenses and corresponding increased operating losses for the foreseeable future as we continue to develop our pipeline. Our costs may further increase as we conduct clinical trials and seek regulatory approval for and prepare to commercialize our candidates. We expect to incur significant expenses to continue to build the infrastructure necessary to support our expanded operations, clinical trials, commercialization, including manufacturing, marketing, sales and distribution functions. We will also experience increased costs associated with operating as an independent entity and a public company.

We were incorporated on March 29, 2017 as a wholly-owned subsidiary of BioXcel and our operating activities have been funded by BioXcel since January 1, 2015. We have adopted a calendar year-end for reporting purposes.

Relationship with BioXcel

We have entered into an asset contribution agreement, effective June 30, 2017, with BioXcel, as amended and restated on November 7, 2017, or the Contribution Agreement, pursuant to which BioXcel agreed to contribute to us, and we agreed to acquire from BioXcel, all of BioXcel's rights, title and interest in and to BXCL501, BXCL701, BXCL502 and BXCL702, collectively, the Candidates, and all of the assets and liabilities associated with the Candidates, in consideration for (i) 40,000 shares of our common stock, (ii) $1 million upon completion of this offering, (iii) $500,000 upon the later of the 12 month anniversary of this offering and the first dosing of a patient in the bridging bioavailability/bioequivalence study for the BXCL501 program, (iv) $500,000 upon the later of the 12 month anniversary of this offering and the first dosing of a patient in the Phase 2 PoC open label monotherapy or combination trial with Keytruda for the BXCL701 program and (v) a one-time payment of $5 million within 60 days after the achievement of $50 million in cumulative net sales of any product or combination of products resulting from the development and commercialization of any one of the Candidates or a product derived therefrom. In addition, pursuant to the Contribution Agreement, upon completion of this offering, BioXcel will grant us a first right to negotiate exclusive rights to any additional product candidates in the fields of neuroscience and immuno-oncology that BioXcel may identify on its own, excluding the Candidates, and not in connection with BioXcel's provision of services to us under the Services Agreement as defined and described below. This option for first negotiation shall be valid for a period of five years from the date of this offering. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Asset Contribution Agreement with BioXcel" for additional information.

We have entered into a separation and shared services agreement with BioXcel that took effect on June 30, 2017, as amended and restated on November 7, 2017, or the Services Agreement, pursuant to which BioXcel will allow us to continue to use the office space, equipment, services and leased employees based on the agreed upon terms and conditions for a payment of defined monthly and/or hourly fees. The parties have agreed that the services and office space provided under the Services Agreement shall decrease over time until the 12 month anniversary of the date of the Services Agreement, except for services to be provided by BioXcel through its subsidiary in India, which shall decrease until the 24 to 36 month anniversary of the date of the Services Agreement, provided such dates may be extended upon mutual agreement between the parties. On or before December 31, 2019, we shall have the option to enter into a collaborative services agreement with BioXcel pursuant to which BioXcel shall perform product identification and related services for us utilizing EvolverAI. We have agreed that this agreement will be negotiated in good faith and that such agreement will incorporate reasonable market-based terms, including consideration for BioXcel reflecting a low, single-digit royalty on net sales and reasonable development and commercialization milestone payments, provided that (i) development milestones shall not exceed $10 million in the aggregate and not be

payable prior to proof of concept in humans and (ii) commercialization milestones shall be based on reaching annual net sales levels, be limited to 3% of the applicable net sales level, and not exceed $30 million in the aggregate. BioXcel shall continue to make such product identification and related services available to us for at least five years from June 30, 2017. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Separation and Shared Services Agreement with BioXcel" for additional information.

In connection with the Services Agreement, BioXcel agreed to provide us a line of credit, which shall be capped at $1 million, or the Total Funding Amount, pursuant to the terms of a grid note, or the Grid Note. The Grid Note shall be payable upon the earlier of (i) the completion of this offering and (ii) December 31, 2018, together with interest on the unpaid balance of each advance made under the Grid Note, which shall accrue at a rate per annum equal to the applicable federal rate for short-term loans as of the date hereof, in each case calculated based on a 365-day year and actual days elapsed. As of December 31, 2017, we have drawn $371,000 under the Grid Note. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Separation and Shared Services Agreement with BioXcel" for additional information.

For the period March 29, 2017 through June 30, 2017 BioXcel paid for expenses on our behalf totaling approximately $562,000 of which $122,000 has been repaid as of December 31, 2017. We have agreed to reimburse BioXcel for this amount upon the earlier of (i) 30 days after the completion of this offering and (ii) December 31, 2018. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Separation and Shared Services Agreement with BioXcel" for additional information.

Basis of Presentation

For periods prior to incorporation and through June 30, 2017, our financial statements are presented on a carve-out basis from the financial records of BioXcel. The carve-out includes reasonable allocations of assets and liabilities and expenses attributable to our business. For all periods after June 30, 2017, the allocations of assets, liabilities and expenses attributable to our business shall be made at prevailing prices pursuant to the terms of the Services Agreement, as described below.

These results reflect amounts specifically attributable to the BTI Business, which include expenses, assets and liabilities of BioXcel relating to the Candidates that were contributed to us by BioXcel under the Contribution Agreement for the period from January 1, 2015 until March 29, 2017 (date of incorporation) and further until June 30, 2017. The Services Agreement provides us with certain general and administrative and development support services that became effective June 30, 2017. However, consistent with accounting regulations, we have assumed that we were a separate business within BioXcel and we have reflected the related assets, liabilities and expenses in our results for periods prior to and post incorporation. These financial statements are presented on a carve-out basis and have been derived from the financial statements and accounting records of BioXcel and include reasonable allocations for assets and liabilities and expenses attributable to the business of the product candidates that were contributed.

Management believes the assumptions underlying the allocations of indirect expenses in the carve-out financial information are reasonable, however, our financial position, results of operations and cash flows may have been materially different if it had operated as a stand-alone entity as of and for the fiscal years ended December 31, 2017 and 2016. For the year ended December 31, 2017 results include carve-out amounts from our parent for the period January 1, 2017 through June 30, 2017 and as a standalone entity for the period July 1, 2017 through December 31, 2017.

We have calculated our income tax amounts using a separate return methodology and we have presented these amounts as if we were a separate taxpayer from BioXcel for the period since the date of incorporation (March 29, 2017). BioXcel is a standalone S corporation and its tax obligations were

passed through to its shareholders and were not a liability of the S corporation. As a result, BioXcel did not require a tax provision for federal or state purposes. Therefore no taxes have been allocated to the financials of the Company which is derived from a carve-out process from the financials of BioXcel. Pursuant to our incorporation as a C corporation, BioXcel became our sole owner and contributed the BTI Business in a tax free transaction. From the date of incorporation, we have been a standalone C corporation subject to corporate income tax and the deferred tax and assets have been calculated accordingly.

We consider our expense methodology and results to be reasonable for all periods we present. However, our allocations may not be indicative of the actual expenses we would have incurred had we operated as an independent, publicly traded company for the periods we present.

Components of Our Results of Operations

Revenues

We have not recognized any revenue since inception.

Operating Costs and Expenses

Research and Development

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

- employee-related expenses, including salaries, benefits and stock-based compensation expense;
- expenses incurred towards consultants, laboratories and investigators that conduct our preclinical or clinical research activities;
- the cost of acquiring, developing and manufacturing pre-clinical trial materials and lab supplies; and
- depreciation and other expenses.

We expense research and development costs to operations as incurred. Historically we have not segmented costs associated with our various development programs. The carve-out financials represent the business involving the BTI Business. However, beginning January 1, 2018, we will assign costs to our individual development candidates.

As of December 31, 2017, we had incurred an aggregate of approximately $4.3 million in research and development expenses related to the development of BXCL501 and BXCL701. We expect that our research and development expenses will increase as we plan for and commence our clinical trials of BXCL501, which we expect to accelerate in the first half of 2018, and BXCL701, which we also expect to commence in the first half of 2018.

Because of the numerous risks and uncertainties associated with product development, we cannot determine with certainty the duration and completion costs of these or other current or future clinical trials of BXCL501, BXCL701 or our other product candidates. We may never succeed in achieving regulatory approval for BXCL501, BXCL701 or any of our other product candidates. The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors, including the uncertainties of future clinical and preclinical studies, uncertainties in clinical trial enrollment rate and significant and changing government regulation. In addition, the probability of success for each product candidate will depend on numerous factors, including competition, manufacturing capability and commercial viability.

General and Administrative

General and administrative expenses consist primarily of salaries and related costs for employees in executive, finance and administration, corporate development and administrative support functions, including stock-based compensation expenses and benefits. Other significant general and administrative expenses include accounting and legal services, the cost of various consultants, occupancy costs and information systems costs.

We expect that our general and administrative expenses will increase as we operate both as an independent entity and as a public company. We expect increased administrative costs resulting from our anticipated clinical trials and the potential commercialization of our product candidates. We believe that these increases will likely include increased costs for director and officer liability insurance, hiring additional personnel to support future market research and future product commercialization efforts and increased fees for outside consultants, attorneys and accountants. We also expect to incur increased costs to comply with corporate governance, internal controls, investor relations and disclosures and similar requirements applicable to public companies.

Financial Operations Overview and Analysis for the Years Ended December 31, 2017 and 2016

(in thousands, except percentages)	Years Ended December 31, 2017	2016	Increase (Decrease) $	%
Revenues	$ —	$ —	$ —	
Operating costs and expenses				
Research and development	2,690	1,399	1,291	92%
General and administrative	1,847	721	1,126	156%
Total operating expenses	4,537	2,120	2,417	
Loss from operations	(4,537)	(2,120)	(2,417)	
Other expense				
Interest expense	(2)	—	(2)	
Net loss	$ (4,539)	$ (2,120)	$ (2,419)	

Research and Development Expense

Research and development expenses increased approximately $1.3 million, or 92%, from $1.4 million for the year ended December 31, 2016 to $2.7 million for the year ended December 31, 2017. The increase was primarily due to the increase in drug development expenses of $840,000, from $357,000 for the year ended December 31, 2016 to $1.2 million for the year ended December 31, 2017, which included material costs, clinical trial expenses and consulting fees for therapeutic area experts. Non-cash stock-based compensation charges increased by $416,000, from $528,000 to $944,000 mainly from the charges pertaining to our 2017 Equity Incentive Plan over and above the stock-based compensation costs transferred to us by our Parent. Compensation expenses also increased by $35,000 from $511,000 for the year ended December 31, 2016 to $546,000 for the year ended December 31, 2017.

General and Administrative Expense

General and administrative expenses increased approximately $1.1 million or 156%, from $721,000 for the year ended December 31, 2016 to $1.8 million for the year ended December 31, 2017. The increase was primarily attributable to an increase in employee compensation of $198,000 mainly from

additional administrative time allocated to us by BioXcel to support our increased business activity in the first half of the year and salary costs for our executives during the second half of the year. There was also an increase in non-cash stock-based compensation of $520,000, from $143,000 for the year ended December 31, 2016 to $663,000 for the year ended December 31, 2017, which was mainly from the charges pertaining to our 2017 Equity Incentive Plan over and above the stock-based compensation costs transferred to us by our Parent. In addition, we incurred increases in travel, professional and consultants fees and other expenses totaling $408,000.

Liquidity and Capital Resources

We reported losses of approximately $4.5 and $2.1 million for the years ended December 31, 2017 and 2016 respectively. At December 31, 2017, our accumulated deficit amounted to approximately $4.5 million. We had a working capital deficit of approximately $1.4 million as of December 31, 2017.

As of December 31, 2017, we had cash and cash equivalents of $887,000.

We have not yet generated any revenues and we have not yet achieved profitability. These conditions raise substantial doubt about our ability to continue as a going concern. We expect that our research and development and general and administrative expenses will continue to increase and, as a result, we will need to generate significant product revenues to achieve profitability. We may never achieve profitability.

Sources of Liquidity

Since our inception, until the date of incorporation, all our operations have been financed by our Parent, BioXcel, in the form of net Parent investment. For the period from inception (March 29, 2017) until June 30, 2017 (effective date of the Services Agreement), our operations have been financed through $562,000 (of which $122,000 has been repaid as of December 31, 2017) in advances from BioXcel. Such advances are payable to BioXcel upon the earlier of (i) 30 days after the completion of this offering, (ii) ten days after receiving funding of at least $5,000,000 other than through an IPO and (iii) December 31, 2018. On June 30, 2017, BioXcel agreed to provide us a line of credit of $1 million, pursuant to the terms of the Grid Note. The Grid Note shall be payable upon the earlier of (i) the completion of this offering and (ii) December 31, 2018, together with interest on the unpaid balance of each advance made under the Grid Note, which shall accrue at a rate per annum equal to the applicable federal rate for short-term loans as of the date hereof, in each case calculated based on a 365-day year and actual days elapsed. As of December 31, 2017, we have drawn an amount of $371,000 under the Grid Note.

Our cash and cash equivalents as of December 31, 2017 do not reflect proceeds from the issuance of common shares amounting to $1.95 million in January 2018 and February 2018.

Cash Flows

(in thousands)	Years Ended December 31, 2017	2016
Cash provided by (used in) in thousands		
Operating activities	$ (2,196)	$ (1,294)
Investing activities	—	(4)
Financing activities	3,083	1,298

Operating Activities

For the year ended December 31, 2017, net cash used in operating activities was approximately $2.2 million, which consisted of a net loss of $4.5 million partially offset by an increase of $1.6 million in stock-based compensation and an increase in accounts payable and accrued expenses of $737,000.

For the year ended December 31, 2016, net cash used in operating activities was approximately $1.3 million, which consisted of a net loss of $2.1 million partially offset by an increase of $671,000 in stock-based compensation and an increase in accounts payables and accrued expenses of $156,000.

Investing Activities

There were no investing activities in the year ended December 31, 2017 compared to cash used in the purchase of computer equipment for $4,000 during the year ended December 31, 2016.

Financing Activities

The net cash provided by financing activities was approximately $3.1 million during the year ended December 31, 2017 which was attributable to the investment made by BioXcel prior to our incorporation of $214,000, a loan due to BioXcel of $67,000 for expenses from the date of incorporation to December 31, 2017, $440,000 of services provided by BioXcel for the six months ending December 31, 2017 and $371,000 drawn by us from the line of credit from BioXcel. In addition, we sold 1,804 shares of common stock for approximately $2.1 million in proceeds. This was partially offset by an increase of deferred offering expenses of $70,000.

Net cash provided by financing activities for the year ended December 31, 2016 was approximately $1.3 million, which was attributable to investments made by BioXcel.

Operating Capital and Capital Expenditure Requirements

We believe that the net proceeds of this offering, together with our existing cash, will be sufficient to fund our operations until . We are required to repay the amounts due to BioXcel from the proceeds of this offering for the amounts borrowed under the Grid Note and the amounts due to BioXcel pursuant to the Services Agreement.

We expect to continue to incur significant and increasing operating losses at least for the next several years as we commence our clinical trials of BXCL501 and BXCL701, seek marketing approval for our product candidates and pursue development of our other product candidates. We do not expect to generate revenue unless and until we successfully complete development and obtain regulatory approval for our product candidates. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our planned clinical trials and our expenditures on other research and development activities.

We have based our projections of operating capital requirements on assumptions that may prove to be incorrect and we may use all of our available capital resources sooner than we expect. Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. We anticipate that our expenses will increase substantially as we:

- commence our clinical development of BXCL501 and BXCL701;
- conduct additional research and development with our product candidates;
- seek to identify, acquire, develop and commercialize additional product candidates;
- integrate acquired technologies into a comprehensive regulatory and product development strategy;

- maintain, expand and protect our intellectual property portfolio;
- hire scientific, clinical, quality control and administrative personnel;
- add operational, financial and management information systems and personnel, including personnel to support our drug development efforts;
- seek regulatory approvals for any product candidates that successfully complete clinical trials;
- ultimately establish a sales, marketing and distribution infrastructure and scale up external manufacturing capabilities to commercialize any product candidates for which we may obtain regulatory approval; and
- begin to operate as a public company.

We expect that we will need to obtain substantial additional funding in order to complete our clinical trials. To the extent that we raise additional capital through the sale of common stock, convertible securities or other equity securities, the ownership interests of our existing stockholders may be materially diluted and the terms of these securities could include liquidation or other preferences that could adversely affect the rights of our existing stockholders. In addition, debt financing, if available, would result in increased fixed payment obligations and may involve agreements that include restrictive covenants that limit our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends, that could adversely impact our ability to conduct our business. If we are unable to raise capital when needed or on attractive terms, we could be forced to significantly delay, scale back or discontinue the development or commercialization of BXCL501, BXCL701 or other product candidates, seek collaborators at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available, and relinquish or license, potentially on unfavorable terms, our rights to BXCL501, BXCL701 or other product candidates that we otherwise would seek to develop or commercialize ourselves.

Contractual Obligations

On December 7, 2017 we entered into a contract with a clinical research organization for our first human clinical trial in BXCL 501. The contract will total approximately $1 million.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements as defined under Securities and Exchange Commission rules.

Critical Accounting Policies

The preparation of our financial statements in conformity with accounting principles generally accepted in the United States requires management to exercise its judgment. We exercise considerable judgment with respect to establishing sound accounting policies and in making estimates and assumptions that affect the reported amounts of our assets and liabilities, our recognition of revenues and expenses, and disclosure of commitments and contingencies at the date of the financial statements.

On an ongoing basis, we evaluate our estimates and judgments. We base our estimates and judgments on a variety of factors including our historical experience, knowledge of our business and industry, current and expected economic conditions, the attributes of our products, the regulatory environment, and in certain cases, the results of outside appraisals. We periodically re-evaluate our estimates and assumptions with respect to these judgments and modify our approach when circumstances indicate that modifications are necessary.

While we believe that the factors we evaluate provide us with a meaningful basis for establishing and applying sound accounting policies, we cannot guarantee that the results will always be accurate. Since the determination of these estimates requires the exercise of judgment, actual results could differ from such estimates.

A description of significant accounting policies that require us to make estimates and assumptions in the preparation of our financial statements is as follows:

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from these estimates.

For periods prior to and post incorporation, these financial statements are presented on a carve-out basis and include the financial statements of the Company and financial information derived from the financial statements and accounting records of BioXcel which include reasonable allocations for assets and liabilities and expenses attributable to the BTI Business of product candidates that were contributed.

Accordingly, the historical financial information for the fiscal years ended December 31, 2016 and for the six months ended June 30, 2017 have been carved-out of the financial statements of BioXcel. Such financial information is limited to our business activities, assets and liabilities only. The financial information for the period beginning July 1, 2017 through December 31, 2017 have been prepared as a standalone entity.

BioXcel recorded such product candidates at a zero-historical cost basis, and therefore they are recorded at a zero basis on our books. The historical financial statements have been presented on a basis that includes the results attributable to the business contributed from BioXcel as if we owned the business for all periods presented.

Research and Development

Research and development expenses are expensed as incurred. Patent costs and patent acquisition costs are expensed as incurred, and included in general and administrative expenses.

Stock-based Compensation

Charges from our Parent BioXcel Corporation.

The financial statements include certain expenses of our parent, BioXcel, including stock-based compensation expense that were carved-out of the historical financial statements of BioXcel based on the percentage of the expense attributable to BTI related activities.

BioXcel has granted stock options to its employees under its own equity incentive plan, or the BioXcel Plan. Stock-based compensation expense from awards granted under the BioXcel Plan is allocated to BTI over the required service period over which those stock option awards vest, and is based upon the percentage of time the award recipient spent working on our activities compared to BioXcel activities, which is the same basis used for allocation of salary costs.

The BioXcel stock option awards are valued at fair value on the date of grant and that fair value is recognized over the requisite service period. The estimated fair value of these BioXcel stock option awards was determined using the Black Scholes option pricing model on the date of grant. Stock based awards to non-employees are remeasured at fair value each financial reporting date until vesting is

complete. Significant judgment and estimates were used to estimate the fair value of these awards, as they are not publicly traded.

Our estimation of fair value of the awards considered recent transactions entered into by BioXcel, relevant industry and comparable public company data. Since BioXcel is a non-public entity, the majority of the inputs used to estimate the fair value of the common stock option awards are considered level 3 due to their unobservable nature. Each option award is subject to specified vesting schedules and requirements (a mix of time-based, and corporate event-based, including financing events). Compensation expense is charged to us by BioXcel over the required service period to earn the award which is expected to be up to four years, subject to the achievement of time and event-based vesting requirements. For the years ended December 31, 2017 and 2016 we have incurred share-based compensation expense related to equity awards granted by BioXcel totaling $439,000 and $671,000, respectively. We have recorded these charges as research and development and general and administrative expense in our statement of operations.

BioXcel Therapeutics, Inc. 2017 Equity Incentive Plan

Our board of directors adopted the 2017 Equity Incentive Plan, or the Plan, on August 22, 2017. The Plan will expire on August 22, 2027. The purpose of the Plan is to attract and retain key personnel and to provide a means for directors, officers, managers, employees, consultants and advisors to acquire and maintain an interest in our company, which interest may be measured by reference to the value of its common stock. The details of the Plan are explained in the section titled "Executive and Director Compensation."

We account for stock-based compensation in accordance with ASC 718, "Compensation—Stock Compensation," which requires the measurement and recognition of compensation expense based on estimated fair market values for all share-based awards made to employees and directors, including stock options. Stock-based awards to non-employees are re-measured at fair value each financial reporting date until vesting is complete.

We are required to determine the fair value of equity incentive awards and recognize compensation expense for all equity incentive awards, including employee stock options. We recognize this expense over the requisite service period in the statement of operations. We have adopted FASB ASU 2016-09 and account for forfeitures as they occur, by reversing compensation cost for the unvested portion of an award when the award is forfeited. We use the graded attrition method for expense attribution.

The valuation model we used for calculating the fair value of awards for stock-based compensation expense is the Black-Scholes option-pricing model, or the Black-Scholes Model. The Black-Scholes Model requires us to make assumptions and judgments about the variables used in the calculation, including:

- *Expected term.* We do not believe we are able to rely on our historical exercise and post-vesting termination activity to provide accurate data for estimating the expected term for use in determining the fair value-based measurement of our options. Therefore, we have opted to use the "simplified method" for estimating the expected term of options granted to employees, which is the average of the weighted-average vesting period and contractual term of the option. We use the contractual term for non-employee awards.

- *Expected volatility.* Since there has been no public market for our common stock and lack of company specific historical volatility, we have determined the share price volatility for options granted based on an analysis of the volatility of a peer group of publicly traded companies. In evaluating similarity, we consider factors such as stage of development, risk profile, enterprise value and position within the industry.

- *Risk-free interest rate.* The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of the grant for zero-coupon U.S. Treasury notes with remaining terms similar to the expected term of the options.

- *Dividend rate.* We assumed the expected dividend to be zero as we have never paid dividends and have no current plans to do so.

- *Expected forfeiture rate.* We have adopted FASB ASU 2016-09 and account for forfeitures as they occur, by reversing compensation cost when the award is forfeited.

- *Service period.* We amortize all stock-based compensation over the requisite service period of the awards, which is generally the same as the vesting period of the awards. We amortize the stock-based compensation cost on graded attrition basis over the expected service periods.

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

  The initial valuation of our common stock as of June 30, 2017 was prepared using the Option Pricing Method ("OPM"). The OPM treats common stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceeded the value of any preferred stock liquidation preferences at the time of the liquidity event, such as a strategic sale or a merger. The future value of the common stock under the OPM outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability weighted to arrive at an indication of value for the common stock. The value of our common stock as of June 30, 2017 was estimated at $97.61 per share.

  We valued our common stock as of September 30, 2017 utilizing the hybrid method. The hybrid method uses a market approach to estimate our enterprise value. The hybrid method is a probability-weighed expected return method, or PWERM, where the equity value in one or more of the scenarios is calculated using OPM. The PWERM is a scenario-based methodology that estimates the fair value of common stock based upon an analysis of future values for the company, assuming various outcomes. The common stock value is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes available as well as the rights of all stock holders. The future value of the common stock under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability weighted to arrive at an indication of value for the common stock. The value of our common stock at September 30, 2017 was estimated at $1,314.20 per share. Our initial clinical trial of BXCL501 for mild-probable AD was granted an IND exemption by the FDA on September 25, 2017. As a result, we believe development timeline for this product candidate will be shortened. Based this exemption, we initiated a Phase 1b PK/PD safety study using the IV formulation of Dex in mild probable Alzheimer's Disease, or AD, in December 2017. We believe this exemption was a significant event in our history and a major factor in the increase in our valuation between June 30, 2017 and September 30, 2017.

We valued our common stock on December 31, 2017 also utilizing the hybrid method by updating the assumptions and facts used in our September 30, 2017 valuation. The value of our common stock at December 31, 2017 was estimated at $1,966.75 per share. During the three months ended December 31, 2017 we received Institutional Review Board ("IRB") approval and dosed our first patient in our Phase 1b PK/PD safety study using the IV formulation of Dex in mild probable AD patients. We believe the start of our human clinical trials is a significant event in our history and a factor in the increase in our valuation between September 30, 2017 and December 31, 2017.

In addition to considering the results of these valuations, our board of directors considered various objective and subjective factors to determine the fair value of our common stock as of each grant date, which may be a date later than the valuation dates, noted above including:

- sales of our common stock in any arms-length transactions;
- the progress of our research and development programs, including the status of preclinical studies and planned clinical trials for our product candidates;
- our stage of development and commercialization and our business strategy;
- external market conditions affecting the pharmaceutical and biotechnology industries, and trends within the biotechnology industry;
- our financial position, including cash on hand, and our forecasted performance and operating results;
- the lack of an active public market for our common stock;
- the likelihood of achieving a liquidity event, such as an initial public offering, or IPO, or a sale of our company in light of prevailing market conditions; and
- the analysis of IPOs and the market performance of similar companies in the biopharmaceutical industry.

The assumptions underlying these valuations represent management's best estimates, which involve inherent uncertainties and the application of management judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our stock-based compensation expense could be materially different.

Options Granted

The following table sets forth by grant date the number of shares subject to options granted between June 30, 2017 and December 31, 2017, the per share exercise price of the options, the fair value of common stock per share on each grant date, and the per share estimated fair value of the options:

Grant Date	Number of Shares Subject to Options Granted	Per Share Exercise Price of Options	Fair Value of Common Stock Per Share on Grant Date	Per Share Estimated Fair Value of Options
August 23, 2017	9,271	$ 97.61	$ 97.61	$ 62.45 - 69.63
September 15, 2017	122	$ 97.61	$ 97.61	$ 63.82
October 2, 2017	354	$ 1,314.20	$ 1,314.20	$ 858.45 - $936.00

For stock awards after the completion of this offering, our board of directors intends to determine the fair value of each share of underlying common stock based on the closing price of our common stock as reported on the date of grant.

The intrinsic value of all outstanding options as of December 31, 2017 was million based on the estimated fair value of our common stock of $ per share, which is the assumed initial public offering price per share of our common stock based on the midpoint of the price range set forth on the cover page of this prospectus.

Share based compensation charges related to our 2017 Equity Incentive Plan totaled $1.2 million for the year ending December 31, 2017. There were no corresponding charges for the year ending December 31, 2017 as the plan did not exist.

Total share based compensation charges including the charges from BioXcel's plan for the years ending December 31, 2017 and 2016 total $1,606,000 and $671,000 and respectively.

If factors change and we employ different assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, we may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense. To the extent that our assumptions are incorrect, the amount of stock-based compensation recorded will change.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board, or FASB, issued *ASU 2014-09 Revenue form Contracts with Customers.* Under this guidance on the recognition of revenue from customers. Under this guidance, an entity will recognize revenue when it transfers promised goods or services to customers in an amount that reflects what the entity expects to receive in exchange for the goods or services. This new guidance also requires more detailed disclosures to enable users of the financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The Company will adopt this guidance beginning on January 1, 2018. The guidance allows selection one of two methods of adoption, either the full retrospective approach, meaning the guidance would be applied to all periods presented, or modified retrospective approach, meaning the cumulative effect of applying the guidance would be recognized as an adjustment to opening accumulated deficit balance. Since the Company has no revenue to date, the Company does not believe the adoption of ASU 2014-09 will have a material impact on its financial statements.

In August 2014, the FASB issued *ASU 2014-15 Disclosures of Uncertainties around an Entity's Ability to Continue as a Going Concern.* This ASU requires management to determine whether substantial doubt exists regarding the entity's going concern presumption, which generally refers to an entity's ability to meets its obligations as they become due. If substantial doubt exists but is not alleviated by management's plan, the footnotes must specifically state that "there is substantial doubt about the entity's ability to continue as a going concern within one year after the financial statements are issued." In addition, if substantial doubt exists, regardless of whether such doubt was alleviated, entities must disclose (a) principal conditions or events that raise substantial doubt about the entity's ability to continue as a going concern (before consideration of management's plans, if any); (b) management's evaluation of the significance of those conditions or events in relation to the entity's ability to meet its obligations; and (c) management's plans that are intended to mitigate the conditions or events that raise substantial doubt, or that did alleviate substantial doubt, about the entity's ability to continue as a going concern. If substantial doubt has not been alleviated, these disclosures should become more extensive in subsequent reporting periods as additional information becomes available. In the period that substantial doubt no longer exists (before or after considering management's plans), management should disclose how the principal conditions and events that originally gave rise to substantial doubt have been resolved. The Company has adopted the provisions of ASU 2014-15 beginning January 1, 2016.

In February 2016, the FASB issued *ASU 2016-02 Lease Accounting Topic 842*. This ASU requires us to record all leases longer than one year on our balance sheet. Under the new guidance, when the

Company records leases on its balance sheet under it will record a liability with a value equal to the present value of payments it will make over the life of the lease and an asset representing the underlying leased asset. The new accounting guidance requires the Company to determine if its leases are operating or financing leases, similar to current accounting guidance. The Company will record expense for operating type leases on a straight-line basis as an operating expense and it will record expense for finance type leases as interest expense. The new lease standard is effective for annual and interim periods beginning after December 15, 2018, with early adoption permitted. The Company must adopt the new standard on a modified retrospective basis, which requires it to reflect its leases on its balance sheet for the earliest comparative period presented. The Company is currently assessing the timing of adoption as well as the effects it will have on its financial statements and disclosures.

In March 2016, the FASB ASU 2016-09, *Compensation- Stock Compensation* simplifying certain aspects of share-based payment accounting. Under the amended guidance, the Company will recognize excess tax benefits and tax deficiencies as income tax expense or benefit in its statement of operations on a prospective basis. As the Company has a valuation allowance, this change will impact the Company's net operating loss carryforward and the valuation allowance disclosures. Additionally, the Company will classify excess tax benefits as an operating activity and classify amounts the Company withholds in shares for the payment of employee taxes as a financing activity on the statement of cash flows for each period presented. The amended guidance allows the Company to account for forfeitures when they occur or continue to estimate them. The Company will continue to estimate its forfeitures. The Company adopted this guidance on January 1, 2017. The amended guidance did not impact its financial results.

The SEC staff issued Staff Accounting Bulletin ("SAB") 118, which provides guidance on accounting for the tax effects of the U.S. tax reform announced on December 22, 2017 by the U.S. Government commonly referred to as the Tax Cuts and Jobs Act. SAB 118 provides a measurement period that should not extend beyond one year from the U.S. tax reform enactment date for companies to complete the accounting under Accounting Standards Codification ("ASC") 740. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the U.S. tax reform for which the accounting under ASC 740 is complete. Specifically, the Company will be required to revalue its U.S. deferred tax assets and liabilities due to the federal income tax rate reduction from 35 percent to 21 percent. Since the Company has provided a full valuation allowance against its deferred tax assets, the revaluation of the deferred tax assets did not have a material impact on any period presented.

Quantitative and Qualitative Disclosure About Market Risk

Our primary exposure to market risk is interest expense sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term duration of Grid Note payable, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our note payable.

We do not believe that our cash has significant risk of default or illiquidity. While we believe our cash does not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash at one or more financial institutions that are in excess of federally insured limits.

Our balance sheet as of December 31, 2017 includes cash of $887,000. We do not participate in any foreign currency hedging activities and we do not have any other derivative financial instruments. We did not recognize any significant exchange rate losses during the years ended December 31, 2017 and 2016 respectively.

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation has had a material effect on our results of operations during the periods presented.

JOBS Act

On April 5, 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an "emerging growth company" can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. In other words, an "emerging growth company" can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies.

We have chosen to opt out of the extended transition periods available to emerging growth companies under the JOBS Act for complying with new or revised accounting standards. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition periods for complying with new or revised accounting standards is irrevocable.

We are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements provided by the JOBS Act. Subject to certain conditions set forth in the JOBS Act, as an "emerging growth company," we intend to rely on certain of these exemptions, including without limitation, (i) providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act and (ii) complying with any requirement that may be adopted by the PCAOB regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis. We will remain an "emerging growth company" until the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission.

BUSINESS

Overview

BioXcel Therapeutics, Inc., or BTI, is a clinical stage biopharmaceutical company focused on drug development that utilizes novel artificial intelligence, or AI, to identify the next wave of medicines across neuroscience and immuno-oncology. Our drug re-innovation approach leverages existing approved drugs and/or clinically validated product candidates together with big data and proprietary machine learning algorithms to identify new therapeutic indices. We believe that this differentiated approach has the potential to reduce the cost and time of drug development in diseases with substantial unmet medical need. Our two most advanced clinical development programs are BXCL501, a sublingual thin film formulation of the α_{2a} adrenergic receptor agonist dexmedetomidine, or Dex, for acute treatment of agitation resulting from neurological and psychiatric disorders, and BXCL701, an immuno-oncology agent for treatment of a rare form of prostate cancer and pancreatic cancer. We initiated a Phase 1b pharmacokinetic/pharmacodynamic or PK/PD, safety study using the IV formulation of Dex in mild probable AD in December 2017 and we plan to initiate a Phase 1b pharmacokinetic/pharmacodynamic safety study using the IV formulation of Dex in schizophrenia patients in the first half of 2018. We expect to report data from both studies by the second half of 2018. We also intend to commence Phase 2 proof of concept, or PoC, open label clinical trials in 2018 for both programs. We expect that a data readout from the planned Phase 2 PoC open label clinical trials for the BXCL501 program will be available by the end of 2018. We intend to initiate a bridging bioavailability, or BA, and bioequivalence, or BE, study for the sublingual thin film formulation in the second half of 2018 that, if successful, could potentially lead to the start of a registration trial in the first half of 2019. Preliminary data from the planned Phase 2 PoC clinical trials of BXCL701 will be available in the first half of 2019.

We were formed to develop first-in-class, high value therapeutics by leveraging EvolverAI, a research and development engine created and owned by our parent, BioXcel Corporation, or BioXcel. We believe the combination of our therapeutic area expertise and our ability to generate product candidates through our exclusive collaborative relationship with BioXcel in the areas of neuroscience and immuno-oncology gives us a significant competitive advantage. EvolverAI was developed over the last decade and integrates millions of fragmented data points using artificial intelligence and proprietary machine learning algorithms. After evaluating multiple product candidates using EvolverAI, we selected our lead programs because our analysis indicated these drugs may have utility in new therapeutic indices where there is substantial unmet medical needs and limited competition. By focusing on clinical candidates with relevant human data, we believe our approach will help us design more efficient clinical trials, thereby accelerating our product candidates' time to market. We retain global development and commercialization rights to these two programs.

BXCL501 is a potential first-in-class sublingual thin film formulation of Dex designed for acute treatment of agitation in neurodegenerative and psychiatric disorders. Dex has been well tolerated, having been prescribed in millions of patients as the sedative and anesthetic Precedex and has been studied in over 130 clinical trials. BXCL501 is designed to be a non-invasive, easy to administer agent that has a rapid onset of action, which is critical for the acute treatment of agitation. We estimate that over 500,000 patients who suffer from Alzheimer's Disease, or AD, in the United States annually could be eligible for the acute treatment of agitation with BXCL501. In schizophrenia and bipolar disease, we estimate that over 600,000 patients in the United States annually could be eligible for the acute treatment of agitation with BXCL501. The current treatment options for agitation utilize antipsychotics and benzodiazepines, which have suboptimal safety and compliance issues. Antipsychotics have a black box warning for use in the elderly and can produce debilitating side effects when given acutely, and should only be considered for invasive intramuscular, or IM, delivery in highly aggressive patients requiring restraint. Benzodiazepines are predominantly in pill form, which require swallowing and can produce excessive sedation. We have designed a dual clinical development program that takes

advantage of the U.S. Food and Drug Administration's, or FDA, Section 505(b)(2) regulatory pathway and leverages the existing clinical and safety dataset of intravenous, or IV, formulation of Dex. We plan to initiate two Phase 1b single ascending or descending dose studies of the IV formulation of Dex in mild probable AD by the first half of 2018 and schizophrenia patients in the first half of 2018, followed by PoC open label clinical trials, from both of which we expect to report data by the second half of 2018. We intend to initiate a bridging BA/BE study with the sublingual thin film formulation in the second half of 2018 that, if successful, could potentially lead to the start of a registration trial in the first half of 2019.

BXCL701 is a potential first-in-class, highly potent, oral small molecule immuno-modulator that is designed to stimulate both the innate and acquired immune systems by inhibiting dipeptidyl peptidase, or DPP, 8/9 and fibroblast activation protein, or FAP. DPP 8/9 have been show recently to behave as an "immuno-checkpoint" of the immune system, as their inhibition results in a potent pro-inflammatory, anti-tumor activity by way of the induction of cell death in the macrophages and the downstream stimulation of multiple tumor-killing immune cells. BXCL701 is differentiated among DPP inhibitors because it is designed to inhibit DPP 8/9 and FAP, whereas most other clinical stage DPP inhibitors, which have been developed to treat diabetes, are selective for DPP 4. BXCL701 has been tested in more than 700 healthy subjects and cancer patients across multiple clinical trials, providing evidence of being well tolerated, proof of mechanism, and single agent anti-tumor activity in patients with melanoma, an immuno-sensitive tumor. We believe that we can leverage this clinical data to determine the dose to use in future clinical trials and support accelerated clinical development. BXCL701 is a potential novel therapy for treatment-emergent neuroendocrine prostate cancer, or tNEPC, a segment of prostate cancer patients that have progressed on second-generation androgen inhibitors (Zytiga and Xtandi), and is also a potential treatment for pancreatic cancer, both of which are rare diseases. We selected tNEPC and pancreatic cancer as our lead indications after evaluating more than 100 different tumor types because they are two of the top three cancers that overexpressed or amplified DPP 8/9 and FAP. Additional data points to a functional role of DPP 8/9 in the biology of tNEPC. Approximately one in three patients treated with Zytiga and Xtandi are expected to develop tNEPC based on information in an article published in the Journal of the National Comprehensive Cancer Network in 2014 by Agarwal et. al. and an article published by the Journal of Clinical Oncology in 2014 by Wang et. al. and become eligible for treatment with BXCL701, which we believe can be an available treatment option that can be used after these patients are not responding to further treatment with these two drugs. The combined global sales of Zytiga and Xtandi, which are only approved for prostate cancer treatment, were over $4.5 billion in 2016 and management believes such sales number gives a perspective of the potential market for BXCL701 in this indication, which would be comprised of the approximate one-third of the patients treated with Zytiga and Xtandi. In pancreatic cancer, we estimate that approximately 20,000 patients will be eligible for treatment with BXCL701 annually as about 50% of pancreatic cancer patients can receive 2nd line therapy based on information in an article published in the Annals of Oncology in 2013 by Rahma et al. Based on our analysis, we believe that BXCL701 may establish a differentiated immuno-oncology platform by modulating multiple steps in the cancer immunity cycle, and in combination with checkpoint inhibitors can convert immuno-resistant tumors to immuno-sensitive tumors ("cold" to "hot" tumors). We plan to initiate two Phase 2 PoC open label clinical trials in the second half of 2018, as a single agent and in combination with Keytruda in patients with tNEPC, and in combination with Keytruda in pancreatic cancer. We expect to receive preliminary data in the first half of 2019 and intend to pursue breakthrough therapy designation and accelerated approval pathways for both indications. BXCL701 has received orphan drug designation by the FDA for the treatment of pancreatic cancer.

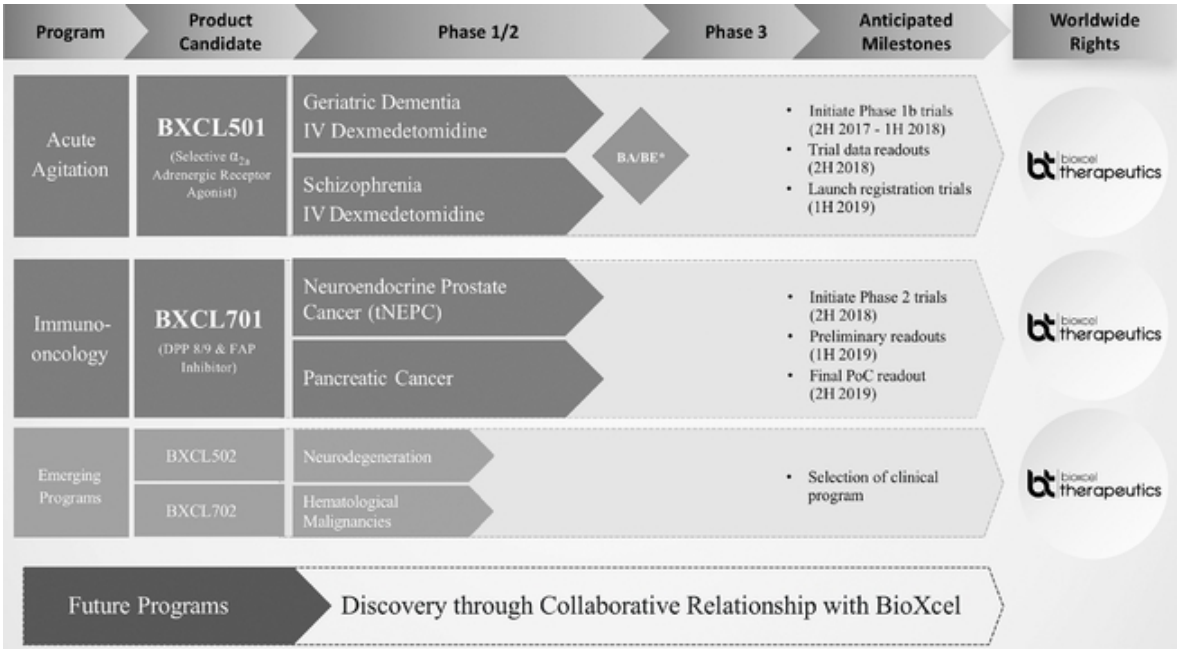
Furthermore, we are growing our pipeline with additional development candidates by leveraging our management team's therapeutic area expertise with EvolverAI. We are also exploring development of BXCL502, a novel approach to the treatment of symptoms resulting from neurological disorders, and BXCL702, an immuno-oncology agent targeting hematological malignancies for which we have received

orphan drug designation from the FDA for the treatment of acute myeloid leukemia, or AML. We retain global development and commercialization rights to these two programs. We intend to select our next clinical program in 2018 from our emerging or future programs.

We have assembled a management team with extensive experience in the discovery, development and approval of more than 10 drugs and who have held senior executive roles at leading pharmaceutical companies. We are supported by our experienced board of directors and advisory board, which includes Drs. Peter Mueller (Vertex, Boehringer Ingelheim), Steven Paul (Voyager Therapeutics, Sage Therapeutics, Eli Lilly) and Sheila Gujrathi (Receptos, Bristol-Myers Squibb, Roche), who contribute to our strategy with their expertise in building public companies. We believe that our team is ideally positioned to leverage our highly differentiated platform to develop the next wave of innovative medicines.

Our Clinical Programs

The following table summarizes our lead development programs:



* Bridging bioavailability/bioequivalence (BA/BE) study for optimizing BXCL501 sublingual thin film dose for Phase 3 registration trials

There is currently no active IND for any of our product candidates in the United States, however, our initial clinical trial of the IV formulation of Dex for mild-probable AD was granted an IND exemption by the FDA on September 25, 2017. There has there been no authorization received from any other drug regulatory authority.

Our Strategy

Our goal is to become a leader in the field of neuroscience and immuno-oncology. The key elements to achieving this goal are to:

- **Advance BXCL501, a sublingual thin film formulation of Dex, a selective a_{2a} adrenergic receptor agonist, designed for acute treatment of agitation, to approval through an accelerated FDA Section 505(b)(2) pathway.**

- **Neurological Disorders.** We believe that BXCL501 has the potential to become the standard of care for the acute treatment of agitation arising from diseases such as AD. Dex has been shown to significantly reduce agitation in elderly patients experiencing anesthetic-induced delirium who did not respond to treatment with haloperidol, a potent antipsychotic that is used to treat symptoms for schizophrenia. We initiated a Phase 1b single ascending and descending dose study of the IV formulation of Dex for evaluating PK/PD and safety in mild probable AD patients in December 2017, followed by a PoC open label clinical trial, both of which we expect to report data in the second half of 2018. We also intend to initiate a bridging BA/BE study in the second half of 2018 and potentially initiate a registration trial in the first half of 2019.

- **Psychiatric Disorders.** We intend to follow a similar development strategy for the acute treatment of agitation in schizophrenia. We plan to conduct a Phase 1b single ascending and descending dose study of the IV formulation of Dex for evaluating PK/PD and safety in schizophrenia patients being treated with atypical antipsychotics. We expect these studies to begin in the first half of 2018, and will commence a PoC open label clinical trial in agitated schizophrenia patients in the second half of 2018. We intend to initiate a bridging BA/BE study in the second half of 2018 that, if successful, could potentially lead to the start of a registration trial in the first half of 2019.

- **Additional Indications.** We also plan to expand into additional indications for acute treatment of agitation resulting from delirium, alcohol or opiate withdrawal, and post-traumatic stress disorder, or PTSD, as well as explore the use of BXCL501 in patients who are claustrophobic and anxious awaiting an MRI.

- **Advance BXCL701 into Phase 2 trials to assess its potential to be the first approved therapy for tNEPC and for the treatment of pancreatic cancer.**

  - **tNEPC (Orphan Segment of Prostate Cancer).** BXCL701 was previously studied in multiple clinical trials and demonstrated single agent anti-tumor activity in melanoma, an immuno-sensitive tumor. In our preclinical studies, BXCL701 has demonstrated the ability to synergistically increase the anti-tumor activity of checkpoint inhibitors. We believe the existing preclinical and clinical data for BXCL701 may significantly reduce our development time for this compound. We plan to initiate a Phase 2 PoC open label clinical trial in the second half of 2018, as a single agent and in combination with Keytruda in patients with tNEPC.

  - **Pancreatic Cancer.** Data indicates that fibroblast activation protein positive, or FAP+, cells contribute to checkpoint inhibitor resistance in pancreatic cancer, which we believe provides a strong rationale for combining BXCL701 with Keytruda. BXCL701 has been granted orphan drug designation by the FDA for the treatment of pancreatic cancer. We believe the existing clinical and preclinical data for BXCL701 in pancreatic cancer may reduce our development time for this compound. We are planning to initiate clinical development of BXCL701 in pancreatic cancer in the second half of 2018 in collaboration with the Lombardi Cancer Center, starting with a mechanistic study in the neoadjuvant setting (before surgery) followed by an efficacy study in pretreated metastatic patients in combination with Keytruda.

  - **Potential for Accelerated Clinical and Regulatory Approval.** Given that both indications have high unmet medical needs and limited or no treatment options, we intend to pursue breakthrough therapy designation and accelerated approval pathways for both indications.

  - **Additional Indications.** We believe BXCL701 is active at multiple stages of the cancer immunity cycle. As such, we believe BXCL701 offers a "pipeline in a product" platform

given its potential application across other solid tumor types. We believe existing preclinical and clinical evidence support BXCL701's combination potential with checkpoint inhibitors, programmed cell death protein 1, or PD1, or programmed cell death-ligand 1, or PD-L1, inhibitors, antibody-dependent cell-mediated cytotoxicity, or ADCC, antibodies, and cellular therapies such as chimeric antigen receptor T-cell therapy, or CAR-T, for solid tumors and therapeutic vaccines.

- **Identify biomarkers to select patients who have the highest likelihood to respond to our product candidates.** Predicting optimal drug responses in patients requires the identification and validation of predictive biomarkers, specifically in cancer. We believe that our ability to identify patient subsets most likely to respond to our product candidates will increase the clinical benefit to patients and improve the probability of success of our clinical trials. The indications for our lead product candidate BXCL701 were chosen in part because they are known to overexpress DPP 8/9 and FAP. Our planned PoC clinical trial of BXCL701 will examine biomarkers related to its molecular and cellular targets to identify those that may correlate with clinical efficacy and increase our likelihood of success. We are planning to use a similar biomarker-driven approach for future product candidates, including BXCL702.

- **Enhance our R&D pipeline by leveraging our therapeutic area expertise with EvolverAI to identify, develop and commercialize new product candidates in neuroscience and immuno-oncology.** In addition to our leading clinical programs and our emerging and future pipeline, we intend to select our next clinical program during 2018. We have established translational and development expertise, which we believe will help us advance the present and future product candidates in these fields. We may also opportunistically in-license additional product candidates identified through our AI platform approach within our core areas of expertise.

- **Maximize the commercial potential of our product candidates.** We have worldwide development and commercialization rights to our BXCL501, BXCL701, BXCL502 and BXCL702 product candidates. If BXCL501 and BXCL701 are approved in the United States, we would consider building a specialty sales force in the United States and/or collaborate with third parties to maximize the potential of our product candidates. Furthermore, we intend to commercialize BXCL501 and BXCL701 outside the United States through collaborations with third parties.

Management, Board and Advisors Experience

Our management team, board members and advisors are industry veterans having combined experience of more than 150 years in drug discovery, development, business development and commercial leadership in neuroscience and oncology and they have been responsible for the development and approval of more than 10 drugs.

Our co-founder and Chief Executive Officer, Vimal Mehta, Ph.D., is a serial entrepreneur who brings over two decades of experience in launching new ventures, corporate strategy and financing, and global partnering including licensing and M&A transactions. Our Chief Scientific Officer, Frank Yocca, Ph.D., brings over three decades of experience in strategy, discovery and development focused on psychiatry, central nervous system, or CNS, and pain at AstraZeneca and Bristol-Myers Squibb where he played a key role in the development of commercialized products including Abilify, BuSpar and Serzone. Our Chief Medical Officer, Vince O'Neill, M.D., brings over two decades of oncology therapeutic and diagnostic product development experience at Sanofi, Genentech and GlaxoSmithKline where he was instrumental in the expanded approval of Genentech's Avastin and Tarceva and the approval of GSK's Mekinist. Our Vice President—Oncology R&D, Luca Rastelli, Ph.D., brings over two decades of drug discovery and development experience in oncology at several companies including CuraGen and EMD Serono, where he played a key role in the novel immuno-oncology anti-PD-L1 Bavencio and discovery of the anti-transmembrane glycoprotein NMB antibody Glembatumumab vedotin. Our Chief Financial Officer, Richard Steinhart, brings over three decades of financial experience at a number of public and private companies in the healthcare industry including Remedy Pharmaceuticals, Inc., MELA Sciences, Inc. and Emisphere Technologies, Inc.

Our Chairman, Dr. Peter Mueller, has a career spanning more than 30 years in executive leadership roles at Vertex Pharmaceuticals and Boehringer Ingelheim where he played a key role in the development of several approved drugs, including Orkambi, Kalydeco, Incivek, Spiriva and Atrovent. Dr. Mueller and his development teams were awarded the prestigious Galenus Preis (Kalydeco—Europe) and Prix Galien (Incivek—US) industry awards recognizing their contributions in cystic fibrosis and Hepatitis C, among others. Our advisor Dr. Steven Paul is President and CEO of Voyager Therapeutics and brings more than three decades in CNS drug discovery and development to support our neuroscience program. Our advisor Dr. Sheila Gujrathi most recently served as Chief Medical Officer of Receptos and brings over two decades of experience in drug discovery, clinical development and commercial leadership in oncology and immunology to our oncology program.

Our Novel Drug Re-Innovation Approach

Our AI-based discovery and development process is the foundation of our drug re-innovation model for identifying the next wave of medicines. Our therapeutic area experts have over 60 years of experience across the drug discovery and development value chain. We believe EvolverAI is a novel method of finding potential product candidates because it combines the comprehensiveness and efficiency of machine learning and big data analytics with the expertise and intuition of human experience in drug development. We believe the combination of our therapeutic area expertise and our ability to generate therapeutic candidates in neuroscience and immuno-oncology through our exclusive collaborative relationship in those areas with BioXcel gives us a significant competitive advantage.

The pharmacological space spans more than 27,000 active pharmaceutical agents and only around 4,000 are approved and marketed drugs benefiting patients. These marketed drugs may be applied to other indications, including rare diseases, and represent an untapped potential for meeting significant unmet medical need and recoupment of research and development investments. A large number of the remaining agents are clinical candidates that are active, shelved or have failed for reasons other than toxicity and can potentially be re-engineered for different indications or patient segments. They potentially represent an unrealized investment of billions of research and development dollars by the private and public sectors, resulting in an immeasurable amount of patient suffering and sacrificing during clinical development.

Traditional drug development is plagued with low success rates (11.3%, according to Tufts Center for the Study of Drug Development White Paper, 2015), long drug development cycles (10-15 years, according to PhRMA Key Facts 2016) and exorbitant development costs ($2.6 billion per drug, according to PhRMA Key Facts 2016). Furthermore, many serious diseases continue to go unaddressed due to limitations of the current drug discovery paradigm. The recent advent of numerous 'omics' technologies (genomics, proteomics) and rapid advances in science and medicine are generating terabytes of valuable unexploited knowledge that is widely distributed in multiple big data lakes with several orders of complexity and variety. Much of this data is not being systematically applied to the development of next-generation therapeutics, thus preventing the optimization of drug development utilizing the understanding of technology, science, medicine, markets and commercial opportunities. The efficient and intuitive use of big data remains a bottleneck and a challenge to the pharmaceutical industry. Taken together, these factors underscore the need for fundamental new approaches to drug discovery and development. The market opportunity to identify new uses for existing pharmacological agents remains substantial, due to the lack of technology-driven insights. Our parent, BioXcel, has created a proprietary R&D engine, EvolverAI, for drug re-innovation that provides a proprietary systems-based approach designed to unlock the hidden value in drugs. The combination of our therapeutic area expertise and our exclusive collaborative relationship with BioXcel enables us to screen, analyze, and identify the product candidates that we believe have a high likelihood of benefiting patients. The compounds in our pipeline have been identified using this proprietary platform.

EvolverAI is designed to eliminate human bias by scanning millions of data points from disparate data sources to create network maps. The nodes and connections in the network map are weighted and ranked based on the validity of supporting evidence using disease specific algorithms. They are then further analyzed using artificial intelligence and machine learning approaches supplemented by human domain-based expertise to uncover novel connections between disease parameters, molecular targets, mechanisms of actions and product candidates.

This drug re-innovation model is exemplified by the successful development and commercialization of drugs such as Tecfidera (Biogen, Inc.), Thalomid (Celgene Corporation) and Viagra (Pfizer, Inc.). All of these drugs were identified by insights in biology and disease pathophysiology. The successful business models of biotech companies like Puma Biotechnology, Inc. and Corvus Pharmaceuticals, Inc. are based on the re-innovation of existing clinical candidates or marketed drugs to provide novel solutions for patients. Unfortunately, such discoveries have been severely limited in scope due to the lack of a genuinely integrated big data analytics based approach.

We believe that only EvolverAI allows a comprehensive and unbiased evaluation of the complete pharmacological space. Our drug portfolio was identified using EvolverAI and the lead programs were chosen among more than 20 compounds selected using this approach. We believe our drug re-innovation model and exclusive collaborative relationship with BioXcel has the potential to reduce the cost and time of drug development, help us design more efficient trials and accelerate our product candidates' time to market. This assumption is based on capitalizing product candidates with substantial clinical data and mitigated risk due to well-defined safety profiles, known PK/PD properties, and an established manufacturing and regulatory path.

BXCL501, Potential First-in-Class Sublingual Thin Film, α_{2a}Adrenergic Receptor Agonist, for Acute Treatment of Agitation

Agitation Overview and Market Opportunity

Agitation is a common symptom of neurological and psychiatric disorders that currently can only be addressed with invasive treatments in institutional facilities. Agitation is characterized by feelings of unease, excessive talking and/or unintentional and purposeless motions, such as wringing of the hands or pacing. People experiencing agitation may also express excitement, hostility, poor impulse control, tension, uncooperativeness and sometimes disruptive behavior, which could lead to aggression and violence. Often, symptoms of agitation are observed with anxiety or aggressive behavior. In many cases, people develop agitation when treatment for their underlying disorder is not working well. Stressful situations or traumatic events can also trigger agitation. Agitation can occur suddenly or slowly and vary in length, lasting for a few minutes or for an extended period of time.

With the agitation issues associated with schizophrenia and bipolar disease coupled with a fast-growing elderly population, the difficulties and expenses of acute treatment of agitation are expected going to grow significantly. Based on our market research, we estimate that in 2016 the total direct financial cost of all aspects of care for agitation in AD was approximately $40 billion. Management believes that in the near future, the total direct financial cost of all aspects of care for agitation across schizophrenia and biopolar disorder will exceed the costs associated with agitation in

AD. Below are estimated statistics associated with BTI's initial indications targeting agitation in AD, schizophrenia and bipolar disease.

U.S. Market for Treating Agitation		
	Alzheimer's Disease	***Schizophrenia/Bipolar Disease***
Total Patient Population	5,100,000	8,000,000
Diagnosed Agitated Patients	~1,000,000 (30%)	~4,000,000 (50%)
Agitated Patients Receiving Treatment	~525,000 (35%)	~2,000,000 (50%)
Percent Treatable by BXCL501	100%	33%
BXCL501 Addressable Market	525,000	660,000
Estimated Annual Usage Per Patient	24	12
Potential Addressable Annual Usage	12,840,000	7,920,000

Figure 1. Statistics for U.S. market for treating agitation.

Limitations of Current Treatments for Agitation

Despite observed suboptimal safety and side effect profile, antipsychotics are currently used off-label to treat agitation in dementia as well as delirium and are currently the standard of care for the acute treatment of agitation in schizophrenia and bipolar disease. IM delivered antipsychotics, such as haloperidol and risperidone, are used extensively in this setting but are invasive and require patient restraint. Furthermore, these treatments include a black box warning for use in elderly patients. While sublingual tablet formulations utilizing antipsychotics have been developed, these sublingual formulations have long half-lives (21-24 hours) and significant side effects when given either acutely or chronically. Oral agents such as benzodiazepines are also used, but have a slower onset of action and are consequently not effective in the acute treatment of agitation. Side effects of these agents include sedation, amnesia, confusion and a paradoxical response. They can intensify cognitive slowing, cause dependence and can contribute to increased risk of falls and fractures. In addition, long-term use of benzodiazepines has been found to be habit-forming and can cause addiction. Non-adherence with oral agents can also be problematic as patients may attempt to spit out these medications. We believe that based on the current method of administration of oral medicine for agitation, the sublingual thin film offers compliance advantages as it will prevent patients from avoiding treatment.

There is precedent for FDA approval of a non-invasive therapy for the acute treatment of agitation. In 2012, Adasuve, an inhaled version of the antipsychotic loxapine, became the first approved non-invasive acute treatment for agitation in patients with schizophrenia and bipolar disease. The number of hospitals and pharmacies that can administer Adasuve is limited due to a risk of management program, and Adasuve also has a high incidence of side effects. Upon launch, Adasuve was priced at $145 per dose.

The sublingual route of administration is becoming an accepted alternative to oral administration of drug delivery to the CNS when rapid onset or more controlled delivery is required. Currently, there are six products that are approved for sublingual thin film administration. For example, Cynapsus

Therapeutics, Inc. (acquired by Sunovion Pharmaceuticals, Inc.), is a specialty CNS pharmaceutical company that developed a fast-acting, easy-to-use, apomorphine sublingual thin film for the on-demand management of debilitating episodes of tremor associated with Parkinson's Disease. We are in the process of developing a differentiated sublingual thin film dosage form of Dex, which, if approved, may offer benefits such as ease of use and quick absorption for rapid therapeutic effects.

Figure 2. Visual representation of BXCL501 sublingual thin film administration.

Our Solution: BXCL501 Potential First-in-Class Sublingual Thin Film for the Acute Treatment of Agitation

BXCL501, a sublingual thin film formulation of the sedative and anesthetic agent Dex, is designed to be easily administered and have a rapid onset of action. We believe that BXCL501, with its differentiated pharmacology and ease of administration, if approved, could potentially be a first-in-class, non-invasive acute treatment for agitation that can be rapidly administered by physicians and caregivers. Dex is approved in the United States for the sedation of initially intubated and mechanically ventilated patients during treatment in the Intensive Care Unit, or ICU. It is also used in the intensive care setting and sedation of non-intubated patients prior to and/or during surgical and other invasive procedures. Dex, launched in the United States as Precedex in 1999, is a selective α_{2a} adrenergic receptor agonist that has a strong safety record and has been studied in over 130 clinical trials to date. It has also been launched in the European Union and multiple other countries under the trade name Dexdor as a sedative for intensive care patients. Dex gained approval by the European Medicines Agency, or EMA, for sedation of adult ICU patients (requiring a sedation level no deeper than arousal in response to verbal stimulation). It has been used to prevent or treat hyperactive delirium resulting from anesthesia in the ICU. Given these uses of the IV formulation of Dex, we believe Dex formulated in a sublingual thin film will allow for ease of administration in settings where rapid acute treatment of agitation is needed.

Mechanism of Action: α_{2a} Adrenergic Receptor and NE Role in Acute Agitation

BXCL501, with its potential ease of administration and mechanism of action, targets brain agitation mechanisms. Agitation is prevalent in numerous indications, including AD, schizophrenia and bipolar disease and follows a similar causal mechanism. Norepinephrine, or NE, levels are elevated when dementia or schizophrenia patients experience agitation. An α_{2a} receptor agonist, such as Dex, would act to reduce these levels, which would produce a calming effect in patients. It has been well documented that the α_{2a} adrenergic receptors regulate NE in the central nervous system. They are predominantly involved in the control of brain cell communication. Therefore, agents which interact with the α_{2a} adrenergic receptor can selectively regulate the NE system, unlike antipsychotics. Dex is

highly selective for the a_{2a} adrenergic receptor, which results in fewer side effects. The figure below illustrates its mechanism of action.

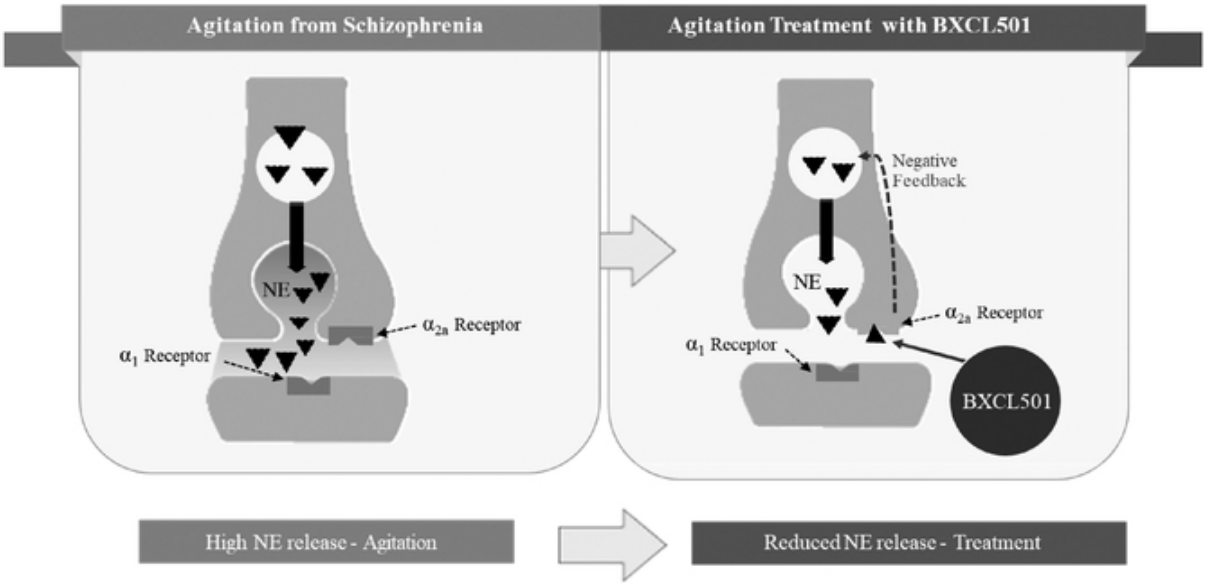


Figure 3. BXCL501 mechanism of action. High norepinephrine, or NE, levels are responsible for agitation. BXCL501 reduces agitation by selectively targeting the a_{2a}adrenergic receptor to reduce NE release.

Summary of Existing Dex Clinical Data

Dex has demonstrated efficacy in acute treatment of agitation from delirium and managing pain in patient populations. Approximately 130 trials have been conducted with Dex as an anesthetic agent in patients with diseases and disorders in a variety of patient segments. To date, based on information available in the package insert for Dex, patients treated with Dex have experienced drug-related side effects including hypotension, transient hypertension, bradycardia, dry mouth, acute respiratory distress syndrome, respiratory failure and agitation with hypotension, bradycardia and dry mouth considered serious adverse events. It has the potential to exhibit strong sedative, analgesic and anxiolytic properties. Furthermore, it demonstrates activity in reducing agitation associated with delirium, suggesting that it may have the ability to control agitation in neurological and psychiatric diseases.

Clinical studies have provided evidence of Dex's activity in reducing agitation associated with delirium, which we believe suggests that Dex may have the ability to control agitation in psychiatric diseases.

- In a non-randomized Phase 2 clinical trial based on information in an article published in Critical Care Medicine in 2015 by Carrasco et al., patients received an IV bolus of haloperidol and additional doses at intervals of 10-30 minutes until agitation was controlled (Richmond Agitation Sedation Scale, or RASS, score of 0 to –2) or until reaching the maximum total dose of 30 mg. Patients served as their own control. For those patients whose agitation was not controlled by haloperidol, Dex was infused to attain a target RASS score of 0. The haloperidol infusion was then gradually tapered and discontinued, with patients continuing on Dex alone.

- Dex demonstrated significant reduction in agitation associated with delirium in non-intubated patients who did not respond to haloperidol. Dex alone was more effective than haloperidol alone in its ability to achieve and maintain low agitation scores, as seen in Figure 4 below. There

were multiple instances where administration of haloperidol was suspended due to over-sedation (these patients were excluded from the study and are not reflected in the figure below). In contrast, Dex administration did not result in any instances of over-sedation. These results demonstrate that Dex could be a useful treatment for treating agitation without inducing over-sedation. Further, these results suggest that Dex could be useful in treating agitation caused by different diseases, such as AD, schizophrenia and bipolar disease.

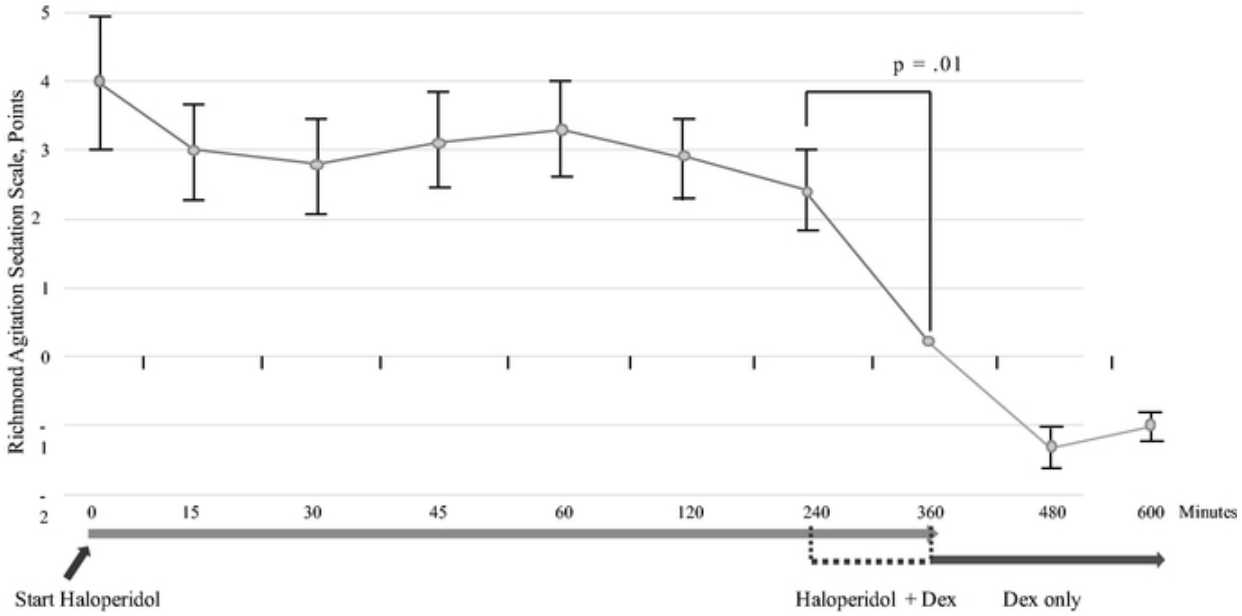


Figure 4. In an article published in Critical Care Medicine in 2015 by Carrasco et al., Dex was shown to significantly reduce agitation due to delirium in non-intubated patients that had failed on haloperidol treatment and had better effectiveness and safety than haloperidol. Significant reductions in agitation were produced by Dex in non-responsive patients who were treated with haloperidol and rescued by Dex (p=0.01). Reductions in agitation continued when Dex was given alone.

- Patients treated with Dex prior to surgery demonstrated a significant reduction in the incidence of ICU based agitation compared to patients that received propofol or midazolam. Several clinical studies conducted in this manner suggest that Dex reduces delirium and agitation, without respiratory depression. Based on information in an article published in the International Journal of Scientific Reports in 2017 by Zhang et al., patients who experienced emergent agitation and/or delirium were successfully managed with a Dex regimen with adverse events similar to those reported in the package insert.

Preclinical Studies Performed by BTI with Dex

We sponsored and conducted two animal studies of Dex. In the first study, we tested sublingual administration of a liquid form of Dex in rats to demonstrate that Dex can be absorbed sublingually and that activity (mimicking arousable sedation) could be achieved in the absence of significant heart rate and blood pressure changes. Additionally, we demonstrated in a rat model of aggression that an IV formulation of Dex inhibited behaviors associated with agitation and aggression in a dose dependent manner without over-sedation.

We also examined the acute effect of sublingual administration of Dex in rats to determine its ability to reduce activity. Hyperactivity in rats represents a preclinical translational behavioral marker for agitation. In the preclinical study, rats were given a sublingual administration of Dex at varying

doses (5 - 40 mcg/kg). Parameters such as behavioral assessment (video monitoring of home cage activity (*e.g.*, sleep/wake)), sleep onset latency, total sleep time, motor activity (Rota rod), respiration (tidal volume and frequency), and cardiac activity (heart rate and blood pressure) were measured. Drug plasma concentrations were also measured. Sublingual administration of Dex induced a dose-dependent increase in total sleep time and a significant reduction of latency to sleep. Furthermore, no significant reduction in blood pressure, heart rate or respiratory parameters were observed at doses below 40 mcg. We believe these changes in behavior indicate that Dex was absorbed via the sublingual route and that Dex had an anti-arousal action on rats.

We have also observed the effect of IV administration of Dex in aggressive animals. We used the resident intruder rat model to evaluate the anti-agitation and/or aggression properties of Dex at varying doses. This model was used to study defensive behavior and aggression in mice and rats. When rodents are exposed to a new male in their home cage environment, they perceive the novel male animal as an "intruder" and demonstrate a repertoire of defensive behaviors. By recording the frequencies, durations, latencies and patterns of the observed behavioral acts as well as postures during these confrontations, a detailed quantitative picture (ethogram) of aggression behavior can be evaluated.

Resident animals were administered the IV formulation of Dex at doses of either 0.3, 0.5, 1.0 or 1.5 mcg/kg 15 minutes prior to testing and the response to the intruder rat was examined for agitation for 15 minutes. Parameters such as ano-genital sniffing, chasing, attacking, biting and latency to attack (both frequency and duration of events) were noted along with the estimation of terminal drug plasma concentrations. Administration of Dex resulted in a dose-dependent, significant reduction in the frequency and duration of several behavioral indices of aggression. A significant increase in the latency to attack was also observed at increasing doses of Dex compared to the control group indicating a reduction in aggression. In summary, this preliminary data for Dex dosed intravenously shows a reduction in aggressive behavior of rats in a dose dependent fashion. We believe the reduction in the overall aggression parameters demonstrates the anxiety/anti-aggression potential of the drug. Future studies are planned with sublingual thin film formulation using the same animal model for aggression.

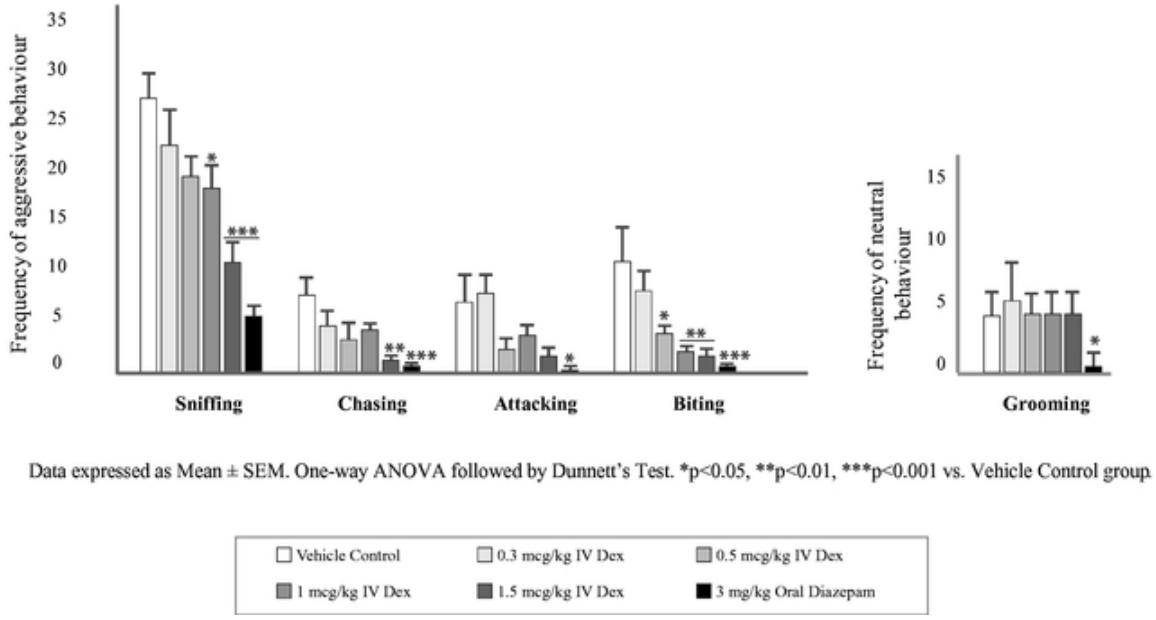


Figure 5. Evaluation of various doses of the IV formulation of Dex for treating aggression in a rat resident intruder model based on a study we sponsored in 2016 with a duration of 15 days. A dose dependent reduction in frequency and duration of aggressive behavior was observed as compared to controls. Dex also did not induce sedation, while oral diazepam did, as shown using the reduction in the normal grooming behavior as a surrogate of sedation.

BXCL501 Clinical Program

Our fully integrated BXCL501 clinical program for treating agitation in AD and schizophrenia is outlined in the figure below. We plan to initially conduct ascending and descending dose studies of the IV formulation of Dex to evaluate PK/PD and safety in mild probable AD patients and schizophrenics on atypical antipsychotics. The planned studies using the IV formulation of Dex in mild probable AD patients and schizophrenics will determine the optimal exposure necessary to produce calm or an arousable sedation and control agitation in these patient groups. Following completion, we plan to initiate a PoC open label study, treating agitated AD and schizophrenia patients with the optimal dose of the IV formulation of Dex determined in the Phase 1b study. This will be followed by a bridging BA/BE study, potentially leading to registration trials with BXCL501, our sublingual thin film formulation of Dex.

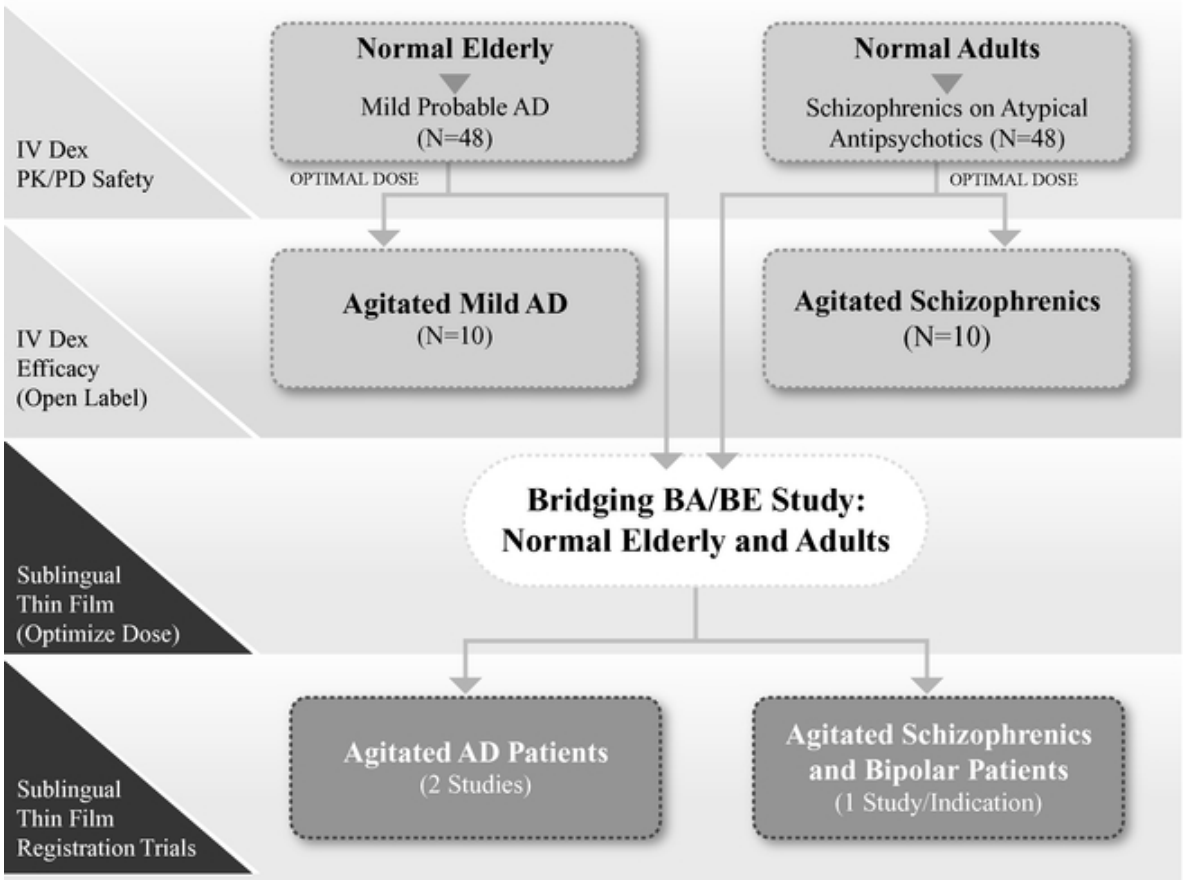


Figure 6. Integrated clinical development plan (subject to FDA approval) for BXCL501 for acute treatment of agitation in AD, schizophrenia and bipolar disease.

Agitation in Dementia

In December 2017 we commenced a Phase 1b single ascending or descending dose PK/PD study of an IV formulation of Dex in healthy volunteers followed by patients with mild probable AD, for a total of up to 48 individuals that we expect to be complete in the second half of 2018. The study design entails determining the optimal dose of an IV formulation of Dex and rate of delivery to provide an anti-agitation dose without patients experiencing adverse effects on respiratory drive, blood pressure and cognitive functioning. The primary endpoint will be to determine the optimal dose of an IV

formulation of Dex in the target population to achieve the required anti-agitation, arousable sedation effect, as defined using RASS, a widely used method to determine a patient's level of sedation. The study will be double-blind, placebo-controlled adaptive trial and will include up to six cohorts. Each cohort will consist of eight individuals, six treated with IV formulation of Dex and two individuals treated with placebo. The first four cohorts will be healthy elderly volunteers and the last two cohorts will be in patients with mild probable AD. The initial dose of the IV formulation of Dex will be 0.1 mcg/kg/hr with no loading dose. The infusion can be continued for up to three hours with dose increases until arousable sedation is achieved. The subsequent cohorts (healthy volunteers) will enable dose and rate optimization using an adaptive approach. The optimized dose and rate will then be tested in patients with mild probable AD to understand whether the underlying pathology affects the activity or safety parameters. These data will be used to optimize our sublingual thin film.

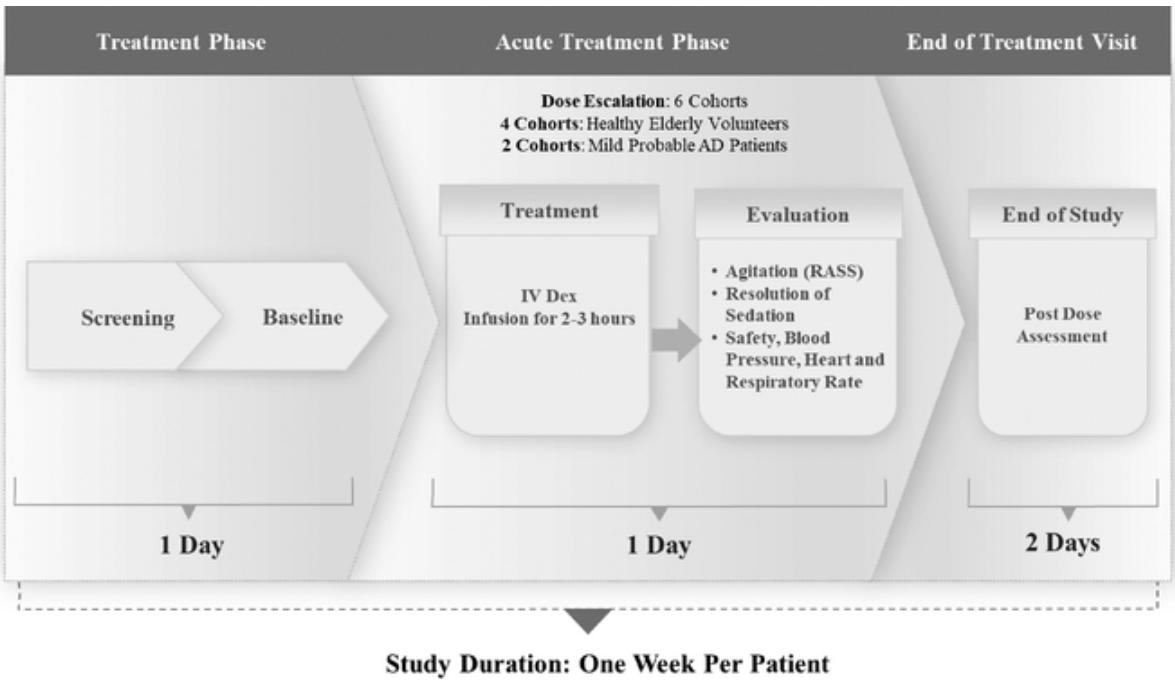


Figure 7. Initial ascending and descending dose study of the IV formulation of Dex for evaluating PK/PD safety in healthy elderly volunteers and mild probable AD patients. Each patient evaluation is expected to be completed in one week.

The optimal dose and rate from this initial study will subsequently be tested in an open label clinical trial to determine efficacy in AD patients with ongoing agitation. Upon completion of the sublingual thin film formulation, a bridging BA/BE study will be performed to determine the sublingual thin film dose necessary to achieve exposure levels that were found to be optimal for efficacy in these initial studies of the IV formulation of Dex. Following the bridging BA/BE study, the equivalent effective dose in the BXCL501 sublingual thin film formulation will be tested in a potential registration trial for the acute treatment of agitation in dementia, which we expect to commence in the first half of 2019.

Agitation in Schizophrenia

We plan to conduct a Phase 1b ascending and descending dose PK/PD and safety study with the IV formulation of Dex in schizophrenics currently being treated with an atypical antipsychotic. Following completion, we intend to conduct a PoC open label clinical trial that will be performed in agitated schizophrenics. Following the planned bridging BA/BE study, the equivalent effective dose in

the BXCL501 sublingual thin film formulation will be tested in a registration trial for treating agitation in schizophrenia and bipolar disease, which we intend to commence in the first half of 2019.

Bridging Bioavailability and Bioequivalence Study: BXCL501 Sublingual Thin Film PK Study

The planned studies using the IV formulation of Dex in mild probable AD patients and schizophrenics are expected to determine the optimal exposure necessary to produce calm or an arousable sedation and control agitation in these patient groups. Through a bridging BA/BE study, we will determine the optimal dose of the BXCL501 sublingual thin film that will yield the same blood exposure that achieved efficacy in the IV formulation of Dex study. To achieve this, we plan to perform a randomized, double-blind, placebo controlled dose escalation study to determine the PK, safety and tolerability of a single sublingual thin film formulation of Dex in healthy adult and elderly volunteers. In this dose-escalation study, participants will be randomly assigned to receive four doses of BXCL501 or placebo. We currently expect to have four cohorts and within each group, participants will receive BXCL501 or a sublingual thin film placebo. The safety and tolerability of each dose level will be carefully reviewed before administration of the next higher dose.

Planned Phase 3 Registration Trials

We intend to conduct Phase 3 registration trials using BXCL501 for acute treatment of agitation in AD, schizophrenia and bipolar disease using the Section 505(b)(2) regulatory pathway. We anticipate that these studies will consist of multicenter, randomized, double-blind, placebo controlled parallel-group studies with a few hundred patients for each of the indications. In the dementia Phase 3 trial, we plan to test two doses of BXCL501 alongside placebo. We believe that RASS is well suited for in-patient settings and can be used to measure the planned primary endpoint, which will be the level of agitation or sedation in a patient. For the schizophrenia and bipolar registration trials, we expect the Brief Psychiatric Ratings Scale, or BPRS, will be used to assess efficacy. The BPRS can capture the change in levels of agitation as the primary endpoint as well measure other psychiatric secondary endpoints. All studies will be designed to be conducted in either a hospital or psychiatric in-patient setting. Depending on the outcome of the pre-IND meeting with the FDA expected in 2018, the planned trial design may need to be adjusted to fit the regulatory path agreed to with the FDA.

Other Neuropsychiatric/Neurodegenerative Indications

Given the differentiated properties of BXCL501 and its selective mechanism of action, we believe that BXCL501 has the potential for broad applicability across several indications where agitation is a symptom of a condition or underlying disease. Dementia and schizophrenia were chosen as our lead indications. Dementia was chosen based on high unmet medical need and lack of a standard of care for acute treatment of agitation in elderly patients suffering from AD. Schizophrenia was also chosen because of the high incidence of agitation in the emergency room and psychiatric outpatient setting resulting from agitation due to residual psychosis and the need for a non-invasive rapidly acting agent in this setting. There are additional neurological and psychiatric disorders as well as medical conditions where agitation is a symptom that needs treating. If we observe positive efficacy results in dementia and schizophrenia patients, we believe this will provide further proof of concept that BXCL501 has therapeutic potential in other neurodegenerative and psychiatric disorders where agitation is a disruptive symptom for patients and caregivers.

A brief description of potential indications that we could pursue in the future with BXCL501 is summarized below. We will determine the timing and prioritization of additional indications as warranted by emerging data.

- **Delirium.** There are a number of studies which suggest that Dex can either prevent or mitigate agitation resulting from delirium based on information in an article published in the

International Journal of Scientific Reports in 2017 by Zhang et al. We believe BXCL501 could be used in non-surgical medical situations where hyperactive delirium is an outcome. We also believe BXCL501 would potentially be of high value in elderly patients in many medical situations outside of the ICU, such as the hospital floor and nursing homes. As a result of the delirium studies mentioned in the clinical section above, there is a defined therapeutic index in elderly patients which we believe may allow us to directly initiate a PoC clinical trial, without conducting the IV formulation of Dex study, potentially followed by a registration trial with BXCL501.

- **Alcohol Withdrawal Syndrome.** Acute alcohol withdrawal remains a widespread problem in hospitalized patients. Benzodiazepines remain the primary treatment for alcohol therapy to help control hyperadrenergic output in patients resulting in withdrawal. These patients are at increased risk of experiencing respiratory depression from benzodiazepine therapy. Based on information in an article published in The American Journal of Drug and Alcohol Abuse in 2015 by Wong et al., in clinical trials, IV administration of Dex has shown potential for treating alcohol withdrawal syndrome. We believe that performing a controlled clinical trial with BXCL501 in this population would be a logical next step to develop this product candidate.

- **Hyperarousal in PTSD.** Hyperarousal is a primary symptom of post-traumatic stress disorder, or PTSD. It occurs when a patient becomes hyperaroused as a result of thinking about their trauma. Even though real danger may not be present, their body acts as if it is, causing lasting stress after a traumatic event. The symptoms of hyperarousal include irritability, anger and angry outbursts, constant anxiety and sleeping problems. We believe that BXCL501 has the potential to reduce symptoms which lead to agitation as well to produce a more natural sleep if taken before bedtime.

- **Pretreatment for MRI.** Anxiety, due to feelings of claustrophobia or noise associated with an MRI, is common among patients who will undergo the procedure, which requires the patient to remain still. Currently, short acting oral benzodiazepines are used but must be taken well in advance of the MRI and could be followed by sluggishness and fatigue. We believe that BXCL501 has the potential to calm patients so that they remain still during the procedure.

BXCL701, Potential First-in-Class DPP 8/9 and FAP Inhibitor for the Treatment of tNEPC and Pancreatic Cancer

Neuroendocrine Prostate Cancer Overview and Market Opportunity

Prostate cancer is the most common malignancy and is the second leading cause of cancer death in men in the United States. In 2014, there were an estimated 3 million men with prostate cancer in the United States. According to estimates from Surveillance, Epidemiology and End Results Program, SEER, more than 161,000 men are expected to be diagnosed with and more than 27,000 men are expected to die from prostate cancer in 2017. While the five-year survival rate of local and regional prostate cancer is almost 100%, more aggressive forms of the disease such as metastatic prostate cancer have a five-year survival rate of approximately 30%. These aggressive forms of prostate cancer can initially be treated with androgen deprivation therapy, or ADT, however, almost all patients experience a recurrence in tumor growth which results in the patient having castrate resistant prostate cancer, or CRPC. An estimated 180,000 men in the United States are eligible for treatment with the second-generation anti-androgen drugs Zytiga and Xtandi. These drugs have widely become the standard of care and generated combined worldwide sales of over $4.5 billion in 2016.

Unfortunately, virtually all the patients who respond to Zytiga and Xtandi are expected to progress to even more aggressive forms of prostate cancer requiring further treatment. About one-third of the progressing patients will develop very aggressive, androgen receptor, or AR-independent tumors, or treatment-emergent neuroendocrine prostate cancer, or tNEPC, for which there is no effective

treatment based on information in an article published in the Journal of the National Comprehensive Cancer Network in 2014 by Agarwal et. al. and an article published by Journal of Clinical Oncology in 2014 by Wang et. al. tNEPC specifically displays neuroendocrine differentiation, either pathologically with the presence of the typical neuroendocrine small cells, or molecularly by expressing neuroendocrine markers. As shown in the figure below, BXCL701 is designed to target this tumor segment because tNEPC has specific biology that is addressable by the mechanism of action of BXCL701. We believe that approximately 30,000 to 40,000 patients in the United States will develop tNEPC who can potentially be treated with BXCL701.

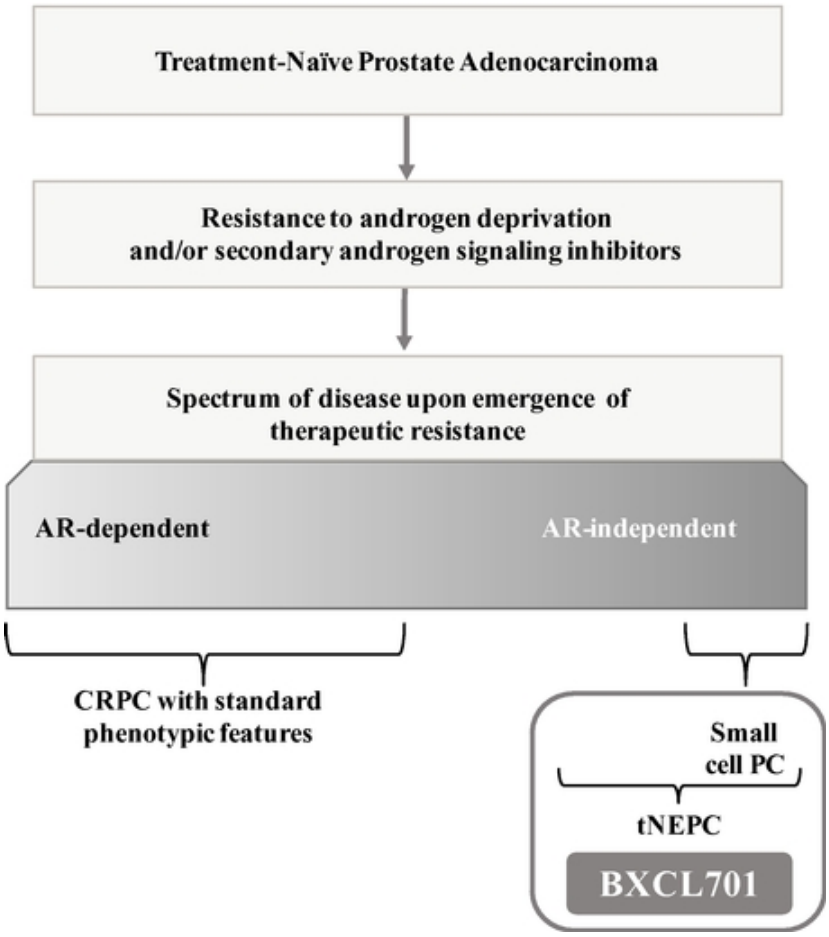


Figure 8. Schematic illustrates tNEPC arising post-ADT therapy treatment. BXCL701 targets this AR-independent subtype where there are no approved therapies and existing/emerging therapies have limited or no efficacy.

Limitations of Current Treatments for tNEPC

There is no approved therapy for tNEPC and therefore we intend to pursue breakthrough therapy designation for BXCL701. tNEPC patients are treated off-label with cytotoxic chemotherapies, such as platinum-based regimens. These treatments have poor efficacy due to their short duration of response and substantial toxicity. As discussed in more detail below, the immuno-oncology field has made several advances in the treatment of solid tumors. However, several trials of immuno-oncology agents in patients with prostate cancer, and specifically tNEPC, have shown limited or no anti-tumor activity. We

believe BXCL701 is a potential first-in-class therapy in tNEPC given its ability to convert immuno-resistant tumors to immuno-sensitive tumors ("cold" to "hot" tumors).

Immuno-oncology Overview

Immuno-oncology is an emerging approach to treating cancer that is based on stimulating or enhancing an immune response to the tumor. This approach is based on the findings that the mutations occurring in cancer cells may be immunogenic and capable of eliciting an immune response against the tumor. Immuno-oncology therapies offer several potential advantages over existing cancer therapies. First, the immune system exhibits immunologic diversity and selectivity, which enables it to respond to a large number of potential cancer targets. Second, the immune response can be amplified, offering the potential to enhance the efficacy of treatment. Furthermore, once activated, the immune system possesses immunologic memory, potentially providing for a durable response. Finally, immunotherapies may be widely applicable to many types of cancer as immunotherapy mechanisms are generally broadly applicable across tissues. This enables these agents to be potentially active in a multitude of cancers. Checkpoint inhibitors remove the "breaks" on the immune system and unleash the immune system's broad cancer-destroying properties. Antibodies against CTLA-4, PD-1 receptor (or its ligand), and PD-L1 (collectively checkpoint inhibitors) have shown positive clinical results in many tumor types, leading to multiple FDA approvals, including Yervoy (ipilimumab; anti-CTLA-4) Opdivo (nivolumab; anti-PD-1), Keytruda (pembrolizumab; anti-PD-1), Tecentriq (atezolizumab; anti-PD-L1) and Bavencio (avelumab; anti-PD-L1). These checkpoint inhibitors are now the standard of care in several oncology settings and represent a substantial commercial opportunity for developing new treatments. It is estimated that the market for immuno-oncology therapies could exceed $27 billion by 2025.

Although checkpoint inhibitors provide benefits to some patients, they also have several limitations. Only a subset of treated patients, typically less than a third, exhibits robust anti-tumor responses (primary resistance). While anti-tumor responses from checkpoint inhibitors are more durable than with traditional therapies, many patients still relapse (secondary resistance). Checkpoint inhibitors have not shown activity as a single agent in patients with prostate cancer due to these resistance mechanisms. The scientific community believes that these resistance mechanisms are related

to the immunity cycle. This cycle is a multistep process involving numerous stimulatory and inhibitory factors that amplify and broaden immuno-cell responses as seen in the figure below.

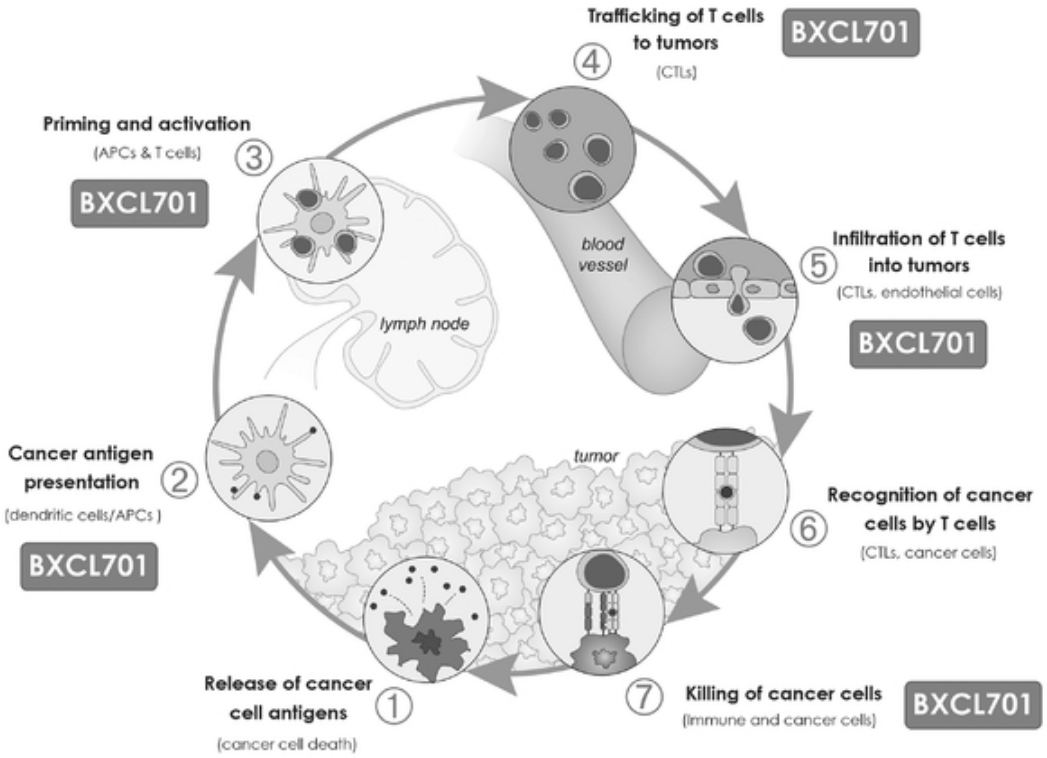


Figure 9a. The cancer immunity cycle as described by Chen and Mellman, Immunity 2013, and those stages where we believe BXCL701 may be active.

Step	Immunity Cycle Step	Potential Role of BXCL701
2	Cancer antigen presentation by dendritic cells	BXCL701 stimulates the trafficking of dendritic cells to tumor draining lymph nodes.
3	Priming and activation of T-cell	BXCL701 accelerates tumor-induced priming of T-cells and the formation of potent cytotoxic T-lymphocytes (CTLs), which can be transferred to secondary hosts.
4	Trafficking of T-cell (and other immune cells) to the tumor	BXCL701 releases the FAP-mediated block of T-cell migration into the tumor.
5	Infiltration of T-cell (and other immune cells) into the tumor	BXCL701 induces the release of chemokines that attract T-effector cells but block T-regulatory cells, and also induce NK cell and neutrophil migration. In addition, the antiangiogenic activity also increases tumor infiltration.
7	Killing of tumor cells	BXCL701 induces the formation of potent CTL and NK cell expressing tumor killing perforin and granzyme and induces the formation of memory T-cells that can reject and kill tumor cells when they return.

Figure 9b. BXCL701's potential role in the cancer immunity cycle.

Importantly, checkpoint inhibitors only impact the final step of the immunity cycle (step 7 in the figure above), allowing other targets and pathways to be exploited by the tumor to create a non-responsive tumor micro-environment. Therefore, the scientific community believes that identifying combinations of immuno-oncology agents that target more than one of these steps along the immunity cycle will result in improved efficacy and reduced resistance. For example, the combination therapy of Opdivo (anti-PD-1) and Yervoy (anti-CTLA-4), which targets multiple steps in the immunity cycle, was recently approved for the treatment of melanoma. There are several additional targets that are currently in development in the clinic as combination agents, including targets like indoleamine 2,3-dioxygenase, or IDO, which mediates immuno-suppression in step 7, or in preclinical development, such as the novel target stimulator of interferon genes, or STING, which induces production of interferon gamma resulting in T-cell priming via dendritic cell stimulation.

Whereas most of these targets and their related compounds will only affect one step in the immunity cycle, we believe BXCL701 has the ability to affect multiple steps of the immunity cycle. We believe that this differentiating ability should give it an advantage over other agents when used in conjunction with checkpoint inhibitors in converting immuno-resistant tumors to immuno-sensitive tumors ("cold" to "hot" tumors). This activity should optimize the anti-tumor activity of the approved immune checkpoint inhibitors in a higher percentage of patients, including patients whose tumors show primary and secondary resistance to immune checkpoint treatment.

DPP 8/9 & FAP Role in tNEPC and Immuno-oncology

DPP 8/9 and FAP are overexpressed in tNEPC and play a significant role in tumor growth. DPP 8/9 regulate the activity of neuropeptide Y, or NPY, a neuroendocrine peptide hormone upregulated in tNEPC. We selected tNEPC and pancreatic cancer as our lead indications after evaluating more than 100 different tumor types because they are represent of the top three cancers that overexpressed or amplified DPP 8/9 and FAP.

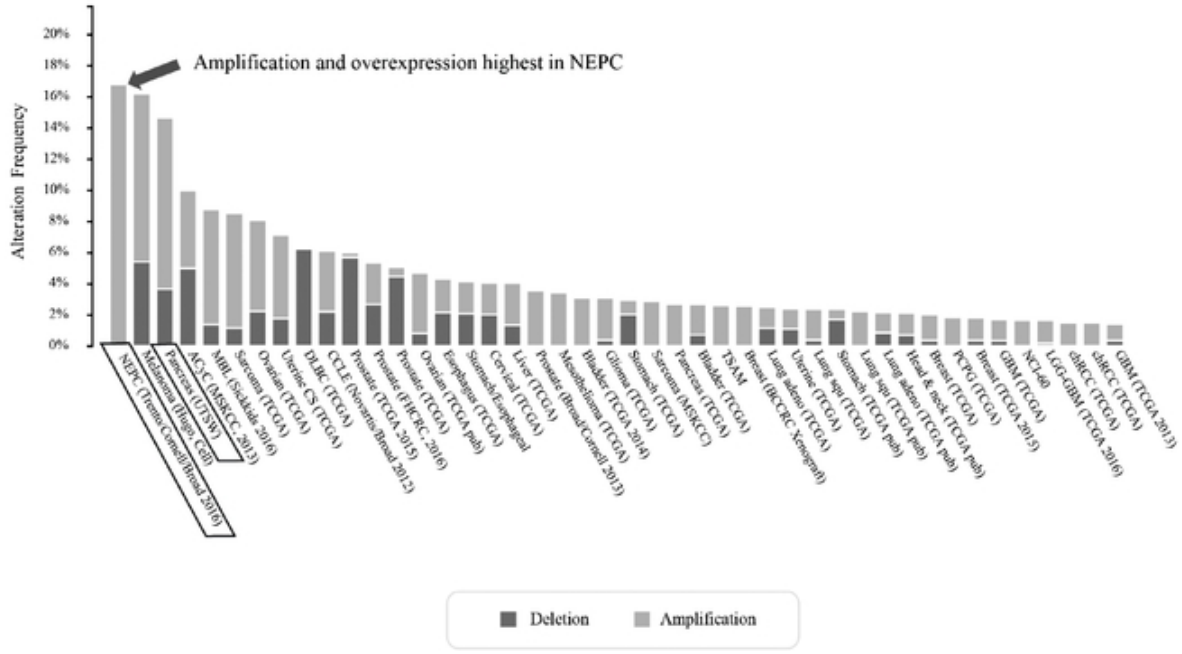


Figure 10. Genetic alteration analysis of DPP 8/9 and FAP (BXCL701 targets) demonstrates that tNEPC and pancreatic cancer have among the highest levels of overexpression and amplification (from The Cancer Genome Atlas).

In addition to this genomic signature, DPP 8/9 and FAP are critical regulators of the immune system and their inhibition causes pro-inflammatory cell death. DPP 8/9 have been shown to limit the activity of macrophages and inhibit the stimulation of the pro-inflammatory anti-tumor response. FAP+ cancer-associated stromal fibroblasts, or FAP+ CAFs, are the main immuno-suppressive cells in tNEPC tumors and blocking their signals leads to improved anti-tumor response. Depleting FAP+ CAFs can delay or prevent tNEPC development. Similarly, myeloid-derived suppressor cells, or MDSC, plays an immuno-suppressive role in the biology of tNEPC. Therefore, we believe inhibition of DPP 8/9 and FAP by BXCL701 can directly lead to tNEPC tumor cell death through the action of the immune system by blocking the activity of the immuno-suppressive cells present in tNEPC.

Our Solution: BXCL701, Potential First-in-Class, Oral, Small Molecule Inhibitor of DPP 8/9 and FAP

BXCL701 is a potential first-in-class, highly potent, oral small molecule immuno-modulator targeting tNEPC that stimulates both the innate and acquired immune system by inhibiting DPP 8/9 identified as novel immuno-checkpoints in based on information in an article published in the Nature Chemical Biology in 2016 by Okondo et al. and FAP, a major immuno-suppressive factor. BXCL701 is differentiated among DPP inhibitors because it is designed to inhibit DPP 8/9, whereas most other DPP inhibitors, including those that have been developed to treat diabetes, are selective for DPP 4. We are not aware of any clinical stage competitors of BXCL701 in the DPP inhibitor class. The product candidate is designed to address the various ways by which DPP 8/9 and FAP play a role in the biology

of tNEPC. Specifically, it is able to directly affect tNEPC tumor cell survival and metastases and modulate immune system activity against tNEPC, as described below.

- **Inhibiting tNEPC Growth Factor NPY.** tNEPC is believed to be caused by neuroendocrine cells in the prostate that overexpress NPY. NPY activates the specific G protein-coupled receptor Y1-R, which then selectively stimulates growth of AR-independent, tNEPC-like cancer cells, while reducing growth in AR-dependent cells. NPY is a substrate of DPP 8/9, which cleaves it into biologically active forms. DPP 8/9 inhibition in tumor cells decreases the number of viable tumor cells by reducing NPY cleavage.

- **Inhibiting the Formation of tNEPC-type (Osteoclastic) Bone Metastasis.** Prostate cancer is characterized by the presence of bone-forming (osteoblastic) metastasis. In contrast, tNEPC is associated with bone-lysing (osteoclastic) metastasis. BXCL701 is designed to block the bone destruction by osteoclasts through the inhibition of osteoclast differentiation. In an animal model that recapitulated the formation of osteolytic metastasis of tNEPC, BXCL701 was observed to reduce osteoclast activity, bone resorption and tumor burden based on information in an article published in the British Journal of Haematology in 2009 by Pennisi et al.

- **Exhibiting Immuno-mediated Activity Against tNEPC.** BXCL701 may potentially have the ability to modulate the immune system in multiple ways based on information in an article published in the Journal of Cancer Research in 2004 by Adams et al. and an article published in PLOS One in 2013 by Walsh et al., several of which are relevant to its ability to treat tNEPC, including:

  - stimulating the activation of multiple immune cell types;
  - stimulating tumor cell killing by inducing the priming, migration and cytotoxicity of T-cells and the formation of memory T-cells;
  - stimulating tumor cell killing by inducing the proliferation and activation of neutrophils;
  - inhibiting the immune suppressive FAP+ CAF and MDSC and delaying or preventing tNEPC development; and
  - synergistically increasing checkpoint inhibitor anti-tumor activity.

The figure below summarizes the complex, multifaceted immuno-mediated mechanism of BXCL701. Through this mechanism, BXCL701 induces an immuno-permissive tumor microenvironment as it stimulates the priming, migration and cytotoxicity of pro-inflammatory cells while dampening the immuno-suppressive phenotype of negative regulatory cells through a unique cytokine and chemokine cascade.

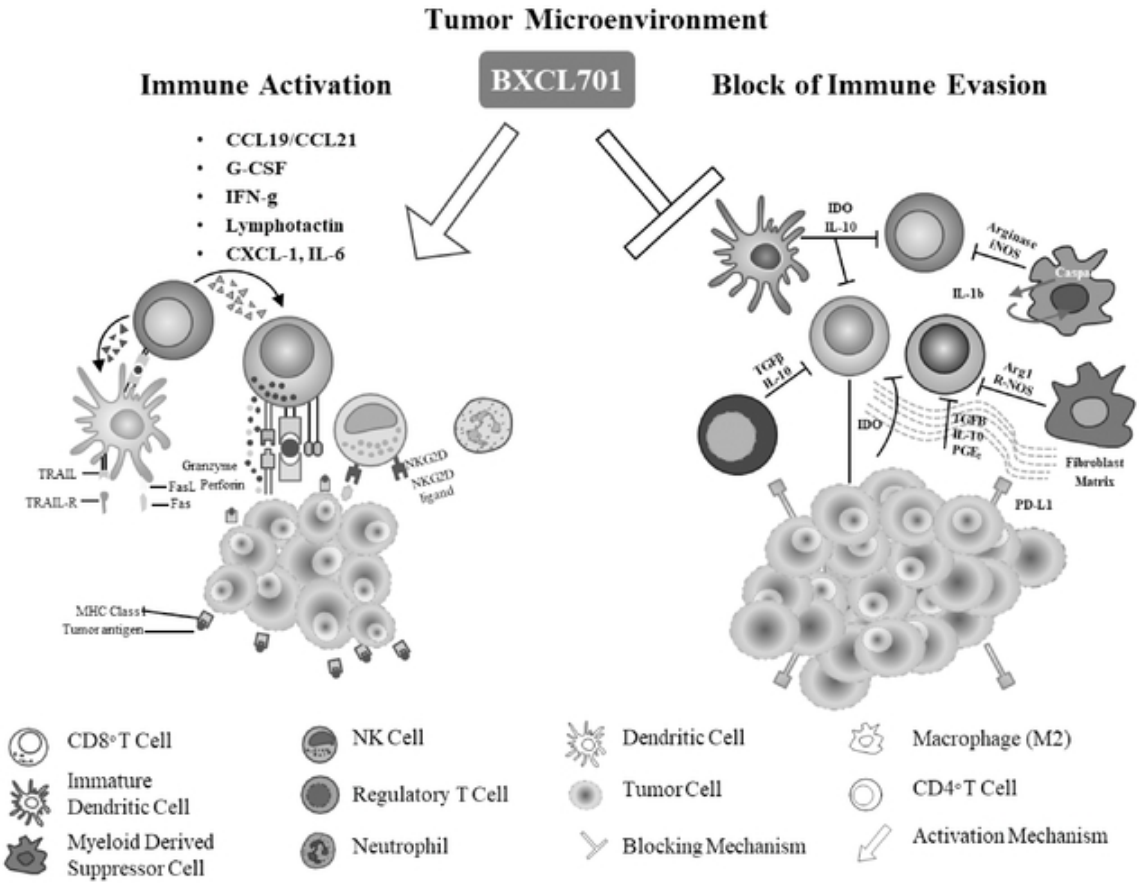


Figure 11. BXCL701 mechanism of action induces activation of the immune system via its stimulation of T-cells, NK cells and neutrophils which are then able to kill tumor cells. At the same time, BXCL701 blocks the immuno-evasion function of certain suppressor cells (FAP+ CAF and MDSC).

There are numerous aspects of BXCL701's mechanism of action that potentially make it a strong and novel combination agent for checkpoint inhibitors. Several aspects have been clinically observed in cancer patients in addition to healthy volunteers in the trials discussed in the clinical section below and reported in Figures 13a and 13b. BXCL701 has been shown to:

- induce wide spectrum cytokines and chemokines in humans, which was observed in healthy volunteer trials (CA168-001, CA168-002), a neutropenia trial (PTH-101), and in a single agent trial in melanoma (PTH-301);
- induce neutrophil/granulocyte proliferation and infiltration into tumors in humans, which was observed in healthy volunteer trials (CA168-001, CA168-002) and in a neutropenia trial (PTH-101);
- stimulate cytotoxic T-cells in humans, which was observed in healthy volunteer trials (CA168-001, CA168-002), and observed in a cancer trial combination of Rituxan and BXCL701 (PTH-203); and
- display direct, single agent anti-tumor effect in humans, which was observed in a melanoma trial (PTH-301).

We sponsored and conducted a preclinical study of BXCL701 in 2016 as a single agent and in combination with Keytruda to test our hypothesis that combining BXCL701 with checkpoint inhibitors will result in synergistic anti-tumor activity. As shown in the figure below, the combination of Keytruda with BXCL701 produced better tumor control than either agent as a single agent.

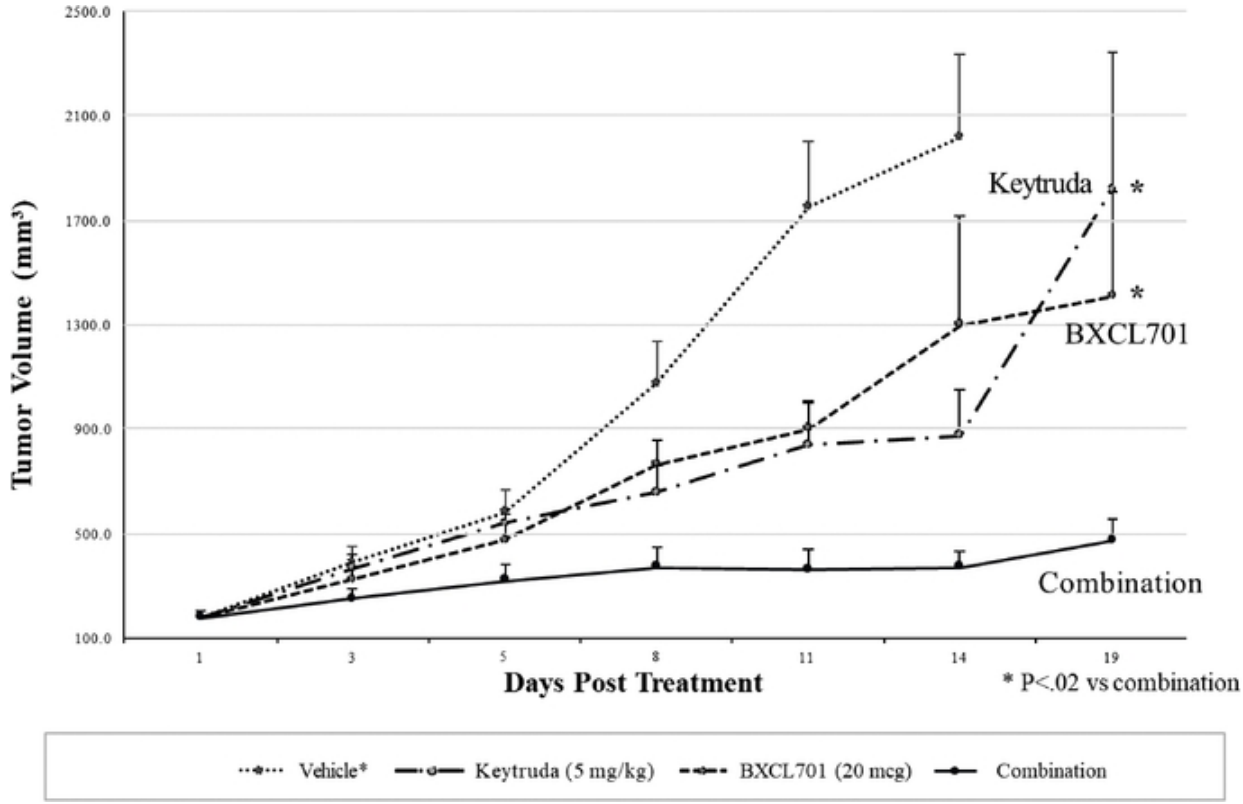


Figure 12. The combination of BXCL701 and a mouse surrogate of Keytruda was tested in MC38 mouse cancer model. Groups of animals were dosed with either BXCL701, Keytruda or the combination of both. The combination achieved a greater reduction in tumor value than either a single agent treatment with significant P-value (<0.02) for both.

The potential of this combination to enhance anti-tumor activity was also observed in a second, more aggressive mouse cancer model, where single agent treatment with Keytruda and BXCL701 alone had no effect while the combination inhibited tumor growth. The molecular and cellular mechanism by which the combination is synergistic has revealed how this synergy could be achieved. At the molecular level, several cytokines known to have strong anti-tumor activity such as Il-2 (an approved immunotherapy), IL-12 and granulocyte-macrophage colony-stimulating factor, appear to be synergistically up-regulated. Also, the combination synergistically increased CXCL9/MIG, which attracts T-effector cells into the tumor. At the cellular level, the combination mobilized activated tumor killing NK cells (expressing perforin and granzyme), from the blood to the tumor. At the same time, treatment with BXCL701 blocked relocation of immuno-suppressive T-regulatory cells to the tumor, an effect that is normally induced by treatment with immune checkpoint inhibitors.

The data and rationale presented above support the use of BXCL701 in combination with Keytruda in tNEPC. This combination could potentially offer tNEPC patients the deep and durable responses and increased survival that has been observed in other tumors upon treatment with immuno-oncology agents. In clinical data to date, BXCL701 has provided evidence of being well tolerated with no overlapping adverse events with checkpoint inhibitors, limiting potential toxicity of the combination.

Summary of Existing BXCL701 Clinical Data (Previously Studied as Talabostat)

BXCL701 has been tested in multiple clinical trials, providing evidence of being well tolerated, proof of mechanism, and single agent anti-tumor activity in patients with melanoma, an immuno-sensitive tumor. BXCL701 was originally developed by Point Therapeutics, Inc. as Talabostat (PT-100).

The details of each of the trials conducted with Talabostat to date, including the date(s) and any results for efficacy endpoints, are disclosed in the figures below: Figure 13a, for dose finding and human pharmacology studies, and Figure 13b for Phase 2 and Phase 3 clinical trials.

Study # / Title dates/duration	Daily Doses (µg)	Number of patients who received Placebo	Number of patients who received Talabostat	Key observations and/or endpoints
CA168-001: SDT 10/1999 to 12/1999	10-2400	18	54	Target inhibition at doses £ 150 µg, Effects on PD seen ³ 1200 µg.
CA168-002: MDT 2/2000 to /2000	25-1800	12	36	Target inhibition at doses ³ 100 µg. Effects on PD seen ³ 600 µg
Children with relapsed/refractory solid tumors 12/2005 to 4/2007	100, 200, 350, 600 (in µg/m2/day)	N/A	6	Target inhibition at doses ³ 100 µg
PTH-101: Solid tumors receiving myelosuppressive therapy 8/2001 to 8/2003	100, 200, 400, 800, 1200	N/A	34	Observed reductions in grade 4 neutropenia at doses from 200 to 800 mg.
				Slight food effect on rate of absorption
PTH-103: Food Effect 8/2004 to 11/2004	200, 300, 400	6	18	No food effect on pharmacokinetics.
PTH-104: Antacid Effect 9/2004 to 11/2004	200, 300, 400	6	18	The co-administration of antacid did not impact pharmacokinetics
PTH-105: Relative BA of Talabostat Oral tablet & Oral solution 4/2006 to /2006	300	N/A	12	The oral formulation did not substantially impact overall exposure
PTH-106: Impaired Renal function 1/2007 to 4/2007	600	N/A	7	Study terminated early due to closure of project
PTH-201: B-Cell Malignancies (w/rituximab) 6/2003 to 12/2004	400, 600, 800	N/A	20	2 Patients (2/20; 10%) Partial response. 600 mg determined to be the Maximum Tolerated Dose (MTD).
	Total Patients (Phase I)	42	205	

Figure 13a. Summary of Talabostat Phase 1 and Human Pharmacology Studies.

Study # / Title dates/duration	Daily Doses (µg)	Number of patients who received Placebo	Number of patients who received Talabostat	Key observations and/or endpoints
PTH-203: CLL (w/rituximab) 7/2004 to 12/2006	600	N/A	53	PR in 7 patients (ORR- 7/53= 13.2%)
PTH-301: Melanoma single-agent 7/2004 to 2/2006	600, 800	N/A	42	CR in 1 patient, PR in 1 patient
PTH-302: NSCLC (w/docetaxel) 3/2004 to 3/2006	400, 600	N/A	55	2CR, 3 PR (response rate = 9.1% (5/55)).
PTH-303: Melanoma (w/cisplatin) 5/2004 to 12/2006	600, 800	N/A	74	PR in 6 patients (response rate= 8.1%)
PTH-304: NSCLC (w/docetaxel) 2/2006 to 6/2007	400, 600	60	65	PFS and OS were significantly reduced following administration of Talabostat versus placebo.
				Trial was halted and the whole clinical program placed on hold.
PTH-305: NSCLC (w/pemetrexed) 2/2006 to 6/2007	400,600	136	138	OS was lower in Talabostat vs placebo. Trial was halted and the whole clinical program placed on hold.
PTH-320: Pancreatic (w/gemcitabine) 6/2005 to 6/2007	400, 600	N/A	68	3 PR, 1 CR (ORR of 5.88%).
				Trial was halted and whole clinical program placed on hold
Metastatic Colorectal Cancer 3/2005 to 2/2006	400, 600, 800	N/A	28	No Objective response. Observed Target inhibition by more than 90% within 1 week of administration and was sustained throughout treatment
	Total (Phase 2 +3)	196	524	

Figure 13b. Summary of Talabostat Phase 2/3 Studies.

The most frequently observed adverse events of all grades across studies that we believe are possibly related to Talabostat were edema/peripheral swelling (228 patients or approximately 39.1% of patients), hypotension (55 patients or approximately 9.4% of patients), dizziness (93 patients or approximately 15.9% of patients), hypovolemia (52 patients or approximately 8.9% of patients), fatigue (215 patients or approximately 36.9% of patients), nausea (181 patients or approximately 31.1% of patients), vomiting (85 patients or approximately 14.6% of patients), pyrexia (92 patients or approximately 15.8% of patients), rigors (56 patients or approximately 9.6% of patients) and rash (59 patients or approximately 10.1% of patients) and they were generally manageable and reversible. The most frequently observed serious adverse events related to Talabostat administered as a single agent were edema (33% to 66% across all grades with three instances of grade 3) and fatigue (50% to 65% across all grades with a single instance of grade 4).

Of the 25 colorectal cancer patients who received Talabostat alone at 200µg twice daily, the most common side effects during treatment were fatigue (54%), edema (46%), nausea/vomiting (36%) and anorexia (39%). Six patients required dose reductions due to toxicity: three for grade 3 toxicities (one for headache/syncope, one for edema, and one for alkaline phosphatase/ transaminase abnormalities) and three for grade 2 toxicities (one for rash, one for fever, and one for fatigue). Anemia and thrombocytopenia were observed in nine (32%) and six (21%) patients respectively. The cause of many side effects was difficult to differentiate between Talabostat toxicities and the symptoms of progressive

disease. Edema was most commonly seen on the extremities, and usually did not require intervention or dose reduction (eleven grade 1, one grade 2, one grade 3). Eight patients died either while receiving study drug or within 30 days of stopping usage: 6 from disease progression, one from Talabostat related toxicity (renal failure; patient received 400mcg twice daily), and one from unrelated causes.

Of the 42 patients with Stage IV metastatic melanoma given Talabostat alone at 300µg twice daily, the most frequently reported adverse events were fatigue (64.3%), edema (54.8%), nausea (26.2%), dizziness, and vomiting (both at 23.8%). In terms of grade 3 and 4 events, grade 3 peripheral edema, vomiting, respiratory distress and gastrointestinal hemorrhage were each reported in 2 (4.8%) patients and grade 3 dyspnea was reported in 3 (7.1%) patients. Grade 4 hypovolemic renal failure (likely secondary to edema and third-spacing of fluid) was reported in one patient.

Across all clinical studies of Talabostat, the serious adverse events which occurred in greater than 5% of patients and were classified as grade 3 or 4 were: PTH-101 study (Phase I): neutropenia and febrile neutropenia (4 patients or approximately 11.8% of patients, each), syncope and leukopenia (3 patients or approximately 8.8% of patients, each), weakness, anemia and hypotension (2 patients or approximately 5.9% of patients, each); PTH-201 study (Phase I), Grade 3: dizziness (3 patients or approximately 15% of patients), thrombocytopenia, blood CPK increased (2 patients or approximately 10% of patients, each), neutropenia, fatigue, edema, pyrexia, infection NOS, eosinophil count increased, electrolyte imbalance, myalgia, rhabdomyolysis, adenocarcinoma, tumor lysis syndrome, syncope, pollakiuria, renal failure NOS, face edema (1 patient or approximately 5% of patients, each); PTH-203 study (Phase II): febrile neutropenia and dyspnea (5 patients or approximately 9.3% of patients, each), neutropenia (4 patients or approximately 7.4% of patients); thrombocytopenia and fatigue (3 patients or approximately 5.6% of patients, each); PTH-301 study (Phase II) Grade 3: dyspnea (3 patients or approximately 7.1% of patients); PTH-302 study (Phase II): neutropenia (23 patients or approximately 41.8% of patients), leukopenia (6 patients or approximately 10.9% of patients), febrile neutropenia and dyspnea (5 patients or approximately 9.1% of patients, each), asthenia and fatigue (4 patients or approximately 7.3% of patients, each), thrombocytopenia, pneumonia NOS and hypovolemia (3 patients or approximately 5.5% of patients, each); PTH-303 study (Phase II): thrombocytopenia (7 patients or approximately 9.5% of patients), fatigue (6 patients or approximately 8.1% of patients), vomiting (5 patients or approximately 6.8% of patients) and hypotension, dehydration, neutropenia and nausea (4 patients or approximately 5.4% of patients, each); PTH-304 study (Phase III): dyspnea (7 patients or approximately 7.7% of patients), pleural effusion and neutropenia (4 patients or approximately 6.2% of patients, each); PTH-320 study (Phase II): deep vein thrombosis (4 patients or approximately 5.9% of patients); Study of single agent Talabostat in metastatic colorectal cancer (Phase II): transaminase elevation (2 patients or approximately 7.1% of patients); PTH-305 study (Phase III) did not report any grade 3 or 4 adverse events occurring in at least 5% of patients.

These studies refer to the standardized definitions published by The National Cancer Institute of the National Institutes of Health for adverse events to describe the severity of organ toxicity for patients receiving cancer therapy. Grade refers to the severity of the adverse event, with grade 1 adverse events generally including mild or asymptomatic conditions or clinical or diagnostic observations only, grade 2 adverse events generally including moderate events or minimal, local or noninvasive intervention events, grade 3 adverse events generally including severe or medically significant events that are not immediately life-threatening, events requiring hospitalization or prolongation of hospitalization or disabling events and grade 4 adverse events generally including life-threatening consequences or urgent intervention events. The Medical Dictionary for Regulatory Activities, or MedDRA, was used throughout the trials to code reported adverse event terms. In some cases, however, terms were more narrowly defined than others. For example, a standard MedDRA term would be "edema, peripheral," where the corresponding broader terms used in these studies would be simply "edema" or "edema, not otherwise specified."

Nine of BXCL701's clinical trials were dose finding and human pharmacology studies, which we have leveraged to define the dosing regimen for our clinical trials. The data obtained in these trials provides a comprehensive overview of safety, PK and full target inhibition plus downstream PD effect on cytokine increase and neutrophil stimulation. In addition, several foundational human pharmacology studies were conducted, including relative bioavailability, food effect and anti-acid effect. The key findings from these trials that we believe are relevant to the further development of BXCL701 include:

- predictable and dose proportional PK;
- maximum tolerated dose, or MTD, of 300 mcg dosed twice a day or 600 mcg dosed once a day; and
- target inhibition observed in human subjects with doses above 100 mcg.

Given these data and the strong anti-tumor activity observed in the preclinical studies, the focus shifted to oncology where the agent was tested in six Phase 2 and two Phase 3 clinical trials involving more than 500 patients. These trials provided an important understanding of the behavior of BXCL701 in cancer patients and provided the following key conclusions enabling us to pursue further development:

- evidence that the drug has anti-tumor activity as a single agent in an immuno-sensitive tumor (melanoma);
- recommended safe and tolerable dose to use in our planned Phase 2 efficacy trial; and
- well-defined adverse event profile, that does not overlap with checkpoint inhibitors, which we believe thereby avoiding the need for lengthy dose escalation in the combination arm of our Phase 2 trial.

A wide range of doses between 100 and 600 mcg administered once or twice daily were studied in these trials and the MTD was determined to be 600 mcg administered once daily. Anti-tumor activity was observed both as single agent and in combination in refractory solid tumors. The most frequent adverse events attributable to BXCL701 were fatigue, edema, dizziness, nausea, vomiting and fever. Edema was dose-related and probably related to a mild capillary-leak syndrome secondary to cytokine up-regulation. The edema observed in clinical studies to date has generally resolved within four to five days of interruption of BXCL701 treatment; patients have resumed BXCL701 either without further occurrence of edema or to a lesser degree of recurrence. While objective clinical responses were seen as single agent and in combination in refractory patients, we believe BXCL701's immuno-modulatory activity was most likely limited by the effect of immune checkpoint expression in the tumor. In addition, most of the BXCL701 trials were conducted in combination with cytotoxic agents, which are generally immuno-suppressive. Therefore, we believe these combinations did not optimally leverage BXCL701's immuno-stimulatory prospects.

Point Therapeutics, Inc. (acquired by Midatech Pharma USA, Inc.) terminated the development of BXCL701 after an interim analysis of the two Phase 3 trials showed that the primary and secondary efficacy endpoints would not be met in non-small cell lung cancer, or NSCLC. In the BXCL701 combination trial with docetaxel (PTH-304), the BXCL701 arm of the study showed higher patient mortality than the placebo arm, which caused the FDA to place Point Therapeutics, Inc. IND for BXCL701 on clinical hold on May 21, 2007 (thereby putting on hold all ongoing clinical trials (PTH-304, PTH-305 and PTH-320)), which remained in place at the time Point Therapeutics ceased development of Talabostat and terminated all clinical trials. We undertook a complete analysis of the clinical data of both Phase 3 trials and concluded that BXCL701 did not contribute to the excess mortality results. Rather, we attributed the observed mortality to a statistical imbalance in the randomization of subjects with more advanced disease in the BXCL701 arm. The second NSCLC study, in combination with pemetrexed, conducted in a similar patient population and often in the same clinical site as the BXCL701 combination trial with docetaxel, did not show the same excess mortality. We shared our analysis with the FDA in a pre-IND meeting and in a follow-up type C meeting, who

acknowledged our conclusion but indicated the data available could not rule out potential safety issues. However, the agency stated that our plan to initiate clinical trials with BXCL701 appeared reasonable and that it has no objection to our approach to combine BXCL701 with checkpoint inhibitors. As a result, we do not believe that the FDA's clinical hold on Point Therapeutics' IND will affect our proposed plans.

Taken together, we believe this extensive set of clinical data covering safety, PK parameters, target inhibition and downstream PD effect and anti-tumor activity, coupled with the genomic and mechanistic work gave us the confidence to build our BXCL701 clinical program.

BXCL701 Clinical Program in tNEPC

We anticipate initiating a Phase 2, two-arm, open label, clinical trial testing BXCL701, as both a single agent and in combination with Keytruda, in patients with tNEPC that have progressed on Zytiga or Xtandi and who had previously been treated with chemotherapy.

Based on preclinical and clinical data, we plan to use a dose of 600 mcg, administered once daily, in both arms of our Phase 2 trial. This dose was previously found to be well tolerated, to inhibit the DPP 8/9 and FAP targets and to stimulate the immune system. In addition, the gene expression for DPP 8 and DPP 9 will be analyzed retrospectively. tNEPC patients are characterized by the presence of soft tissue metastasis that is amenable to biopsy. We expect that patients with tNEPC will show high levels of expression of our biomarkers.

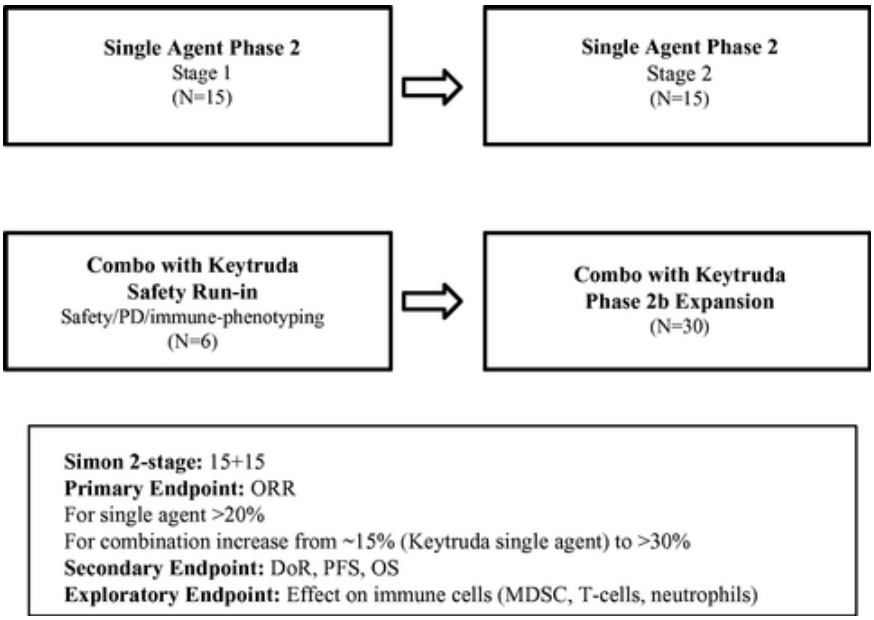


Figure 14. BXCL701 Phase 2 trial design.

As shown in the figure above, the study will consist of two arms:

- **Single agent arm.** Evaluate BXCL701 activity with a Simon 2 stage approach, 15+15 patients. The predictive power of DPP expression as a biomarker will be assessed during the first stage to decide whether it can be used to prospectively select patients for inclusion in the second stage of this trial.

- **Combination arm.** This will consist of a safety run-in that will examine the safety and tolerability of combining BXCL701 and Keytruda in six tNEPC patients. Patients will be dosed with BXCL701 once daily on Days 1-14 of a 21-day cycle plus IV administration of 200 mcg of Keytruda on Day 8 every 21 days. The 7-day BXCL701 rest period is to optimize immune system stimulation. If dose limiting toxicities, or DLTs, are observed during the safety run-in, 400 mcg once daily will be tested.

The Phase 2 primary endpoint will be objective response rate, or ORR. The secondary endpoints will be duration of response, or DoR, progression-free survival, or PFS, and overall survival, or OS. We expect this trial to take approximately two years to complete and to have preliminary data in the first half of 2019 for the single agent arm. The Keytruda prostate cancer single agent trial (Keynote 199), which includes a subset of tNEPC patients, will represent the reference trial to determine the relative range of our primary endpoint.

We plan to request orphan drug designation and breakthrough therapy designation for neuroendocrine prostate cancer as soon as we obtain relevant preliminary efficacy data. We will plan our follow-on clinical strategy based on the results of the PoC trial and discussions with the FDA. The FDA has granted accelerated approval to drugs in tumors like tNEPC that have no available therapies and represent a high unmet medical need based on single arm, ORR-based large Phase 2 or even expanded Phase 1 trials. Therefore we believe there is potential for an accelerated path to approval for BXCL701 if this initial trial shows a relevant percentage of durable responses.

BXCL701 for the Treatment of Pancreatic Cancer

Pancreatic Cancer Overview and Market Opportunity

Pancreatic adenocarcinoma, more commonly referred as pancreatic cancer, represents one of the highest unmet needs in oncology. The American Cancer Society estimates that in 2017 there will be approximately 53,000 new diagnoses and 43,000 deaths. Pancreatic cancer has a median five-year survival rate of only about 8%. Recently, several new therapies have been developed consisting of new formulations of approved chemotherapies. However, these new therapies have limited efficacy with relatively short survival advantages, and well-known toxicities. It is well understood that the development of new efficacious drugs with manageable toxicity is required to achieve durable responses and increase survival in pancreatic cancer. Pancreatic cancer is thought to be a highly immuno-resistant tumor. Multiple attempts to show anti-tumor activity of immunotherapies including immune checkpoints have failed due to primary resistance mechanisms. We believe BXCL701 has the potential to eliminate the resistance to immune checkpoint inhibitors (to convert "cold" tumors "hot") and the combination with Keytruda could generate long and profound responses and the survival increase needed to make a true breakthrough in the treatment of pancreatic cancer.

Abraxane, a new formulation of the chemotherapy agent paclitaxel in combination with gemcitabine, is considered to be the standard of care for newly diagnosed pancreatic cancer in U.S. markets, with annual sales of almost $1 billion. Onivyde, a liposomal formulation of the chemotherapy agent irinotecan, was recently approved for use in second-line pancreatic cancer based on a two-month survival increase (six months vs. four months) and only 7.7% ORR, with annual sales of approximately $80 million. Our initial clinical development plan will target second-line or later pretreated patients, specifically the 50% that remain in good clinical condition after first-line treatment and thus may receive one or more subsequent lines of chemotherapy. Therefore, we believe that the potential number of patients treatable with the combination of BXCL701 and Keytruda, if successfully developed and approved, would be approximately 20,000.

Pancreatic cancer is a high unmet medical need, where approved therapies have limited activity and patients have short survival. In addition, as shown previously in Figure 11 summarizing the genetic data from the The Cancer Genome Atlas database, among all the tumor datasets available for analysis, a high level of overexpression and amplification of DPP 8/9 and FAP is present in pancreatic cancer. Pancreatic cancer is also characterized by the presence of the immuno-suppressive FAP+ CAF. As in tNEPC, single agent immune checkpoint inhibition has not shown single agent anti-tumor activity in pancreatic cancer patients, indicating the need for a molecule like BXCL701 to optimize their activity. Preclinical studies indicate that the combination of FAP and immune checkpoint inhibition is active.

BXCL701 has been granted orphan drug designation from the FDA for the treatment of pancreatic cancer.

FAP Role in Pancreatic Cancer

Pancreatic cancer is characterized by dense fibrotic stroma called desmoplasia (consisting mostly of FAP+ CAFS), which can comprise as much as 90% of tumor mass. It is widely believed that drugs have not been effective in treating pancreatic cancer primarily due to the stroma impeding their ability to penetrate the tumor. As depicted in the figure below, FAP+ CAFs mediate immuno-suppression by producing the chemokine (C-X-C motif) ligand 12 (CXCL12) which binds to the CXCR4 receptor on T-cells. As a result, T-cells are excluded from the tumor and are prevented from killing the tumor cells. As a result of the immuno-suppressive microenvironment driven by FAP+ CAF and MDSC, pancreatic cancer is thought to be the prototypical "cold" tumor. This results in primary resistance to immune checkpoint single agent treatment and limited objective responses.

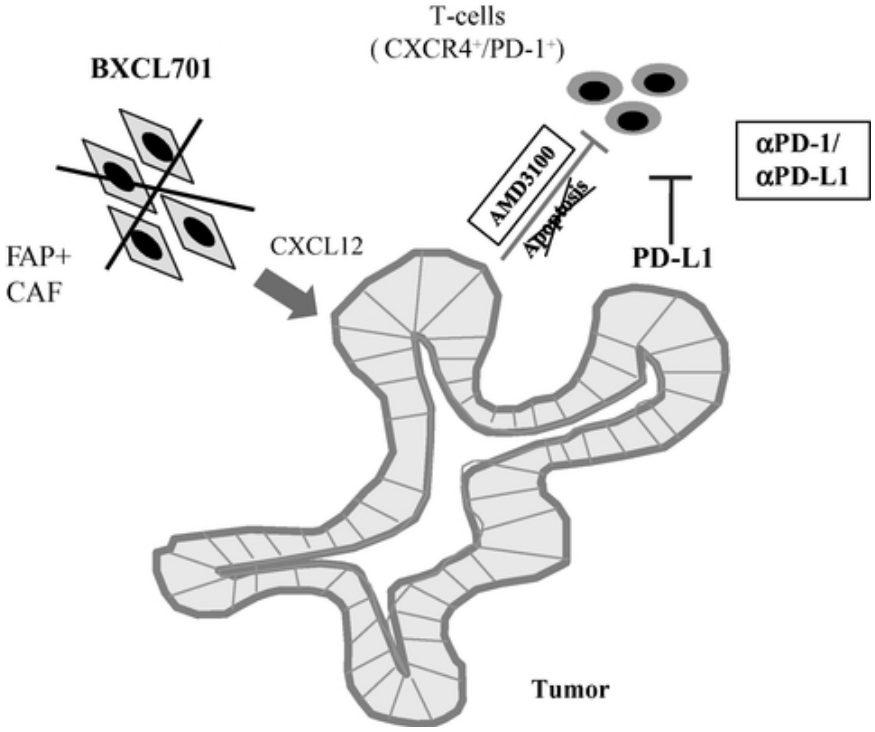


Figure 15. Model of the immuno-suppressive action of FAP+ CAF via secretion of CXCL12 blocking the entrance of T-cells in the tumor. By blocking FAP+ CAF activation, BXCL701 permits T-cells to penetrate the tumor and kill the tumor cells.

Several publications have shown that inhibiting or blocking the activity of these FAP+ CAFs results in decreased tumor growth, including: (i) an article published in Cancer Research in 2015 by Lo et al., (ii) an article published in BMC Gastroenterology in 2015 by Kawase et al. and (iii) an article published in JCI Insight in 2017 by Lo et al. Additionally, preclinical studies have demonstrated that eliminating FAP+ cells combined with the administration of CTLA-4 or PD-L1 acts synergistically to decrease pancreatic cancer growth in animal models as based on information in an article published in the Proceedings of the National Academy of Sciences of the United Stated of America in 2013 by Feig et al. As a result, these studies indicate that the FAP+ cells may contribute to the resistance to these checkpoint antagonists. BXCL701, which inhibits FAP+ CAF, has been shown to decrease tumor growth of human pancreatic tumors in animal models both as a single agent and in combination with Keytruda. In addition, under a collaboration with Nektar Therapeutics, Inc., or Nektar, a triple

combination of BXCL701 with Keytruda and Nektar's NKTR-214 compound was tested in a Pan02 mouse model of pancreatic cancer. Nektar's NKTR-214 compound is a CD122-biased agonist designed to grow specific cancer-killing T-cells and natural killer cell populations in the body which fight cancer as a third non-immuno-checkpoint, immunotherapy agent. As shown in Figure 16a, this triple combination resulted in complete tumor regression in the mice treated. Most of these mice became resistant to re-challenge with new tumors injected more than two months after dosing was stopped, indicating that memory T-cells formed. Observations from this re-challenge experiment were consistent with previous data that BXCL701 has the potential to induce memory T-cells through the induction of IL-15 and IL-7, as published in the Journal of Cancer Research in 2004 by Adams et al. along with new data developed by us. The formation of memory T-cells in humans could translate into durable and profound anti-tumor responses. Immunohistochemistry, or IHC, of the tumors from satellite animals sacrificed on day 3 of the study revealed that BXCL701 significantly reduced FAP expression, and that the double or triple combination therapies containing BXCL701 and Nektar's NKTR-214 had a stronger FAP reduction as shown in Figure 16b. The triple combination therapy increased the number of immune cell infiltrates in the tumor, especially the number of neutrophils as expected based on the previously generated preclinical and clinical data of BXCL701. The triple combination therapy was well-tolerated by the animals. The results suggest that removal of fibrotic barriers to immune infiltration is an important mechanism for overcoming immune escape by tumors otherwise resistant to immune therapy. These results provide therapeutic rationale for treatment of pancreatic cancer patients with this triple combination therapy. Given that the combination of NKTR-214 with anti-PD1 has shown anti-tumor activity in human in PD-L1 negative patients, we believe that the triple combination has the opportunity to further expand the pool of cancer patients that might respond to immunotherapy. We believe the results of this experiment support our belief that BXCL701 is a combination agent that has the potential to improve the anti-tumor activity of immunotherapies beyond immuno-checkpoints. We are not aware of any clinical stage FAP inhibitor competitors of BXCL701.

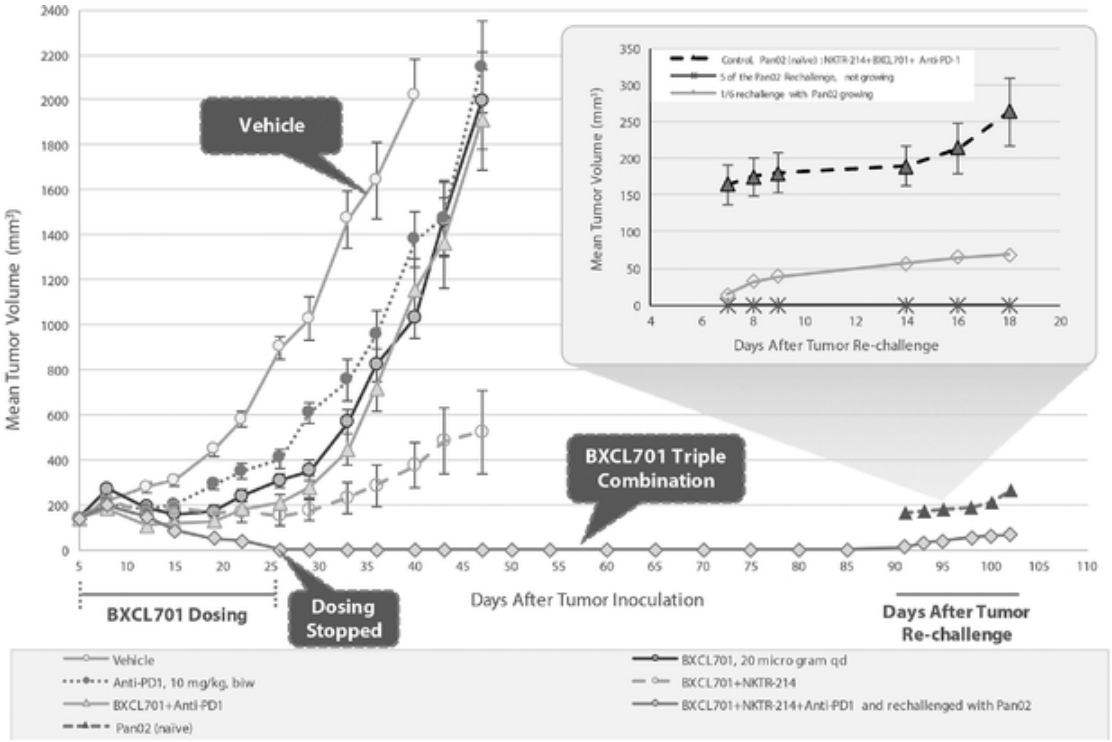


Figure 16a. The triple combination of BXCL701, a mouse surrogate of Keytruda and NKTR-214 was tested in Pan02 mouse model of pancreatic cancer. The triple combination achieved complete tumor regression that was maintained even after dosing stopped.

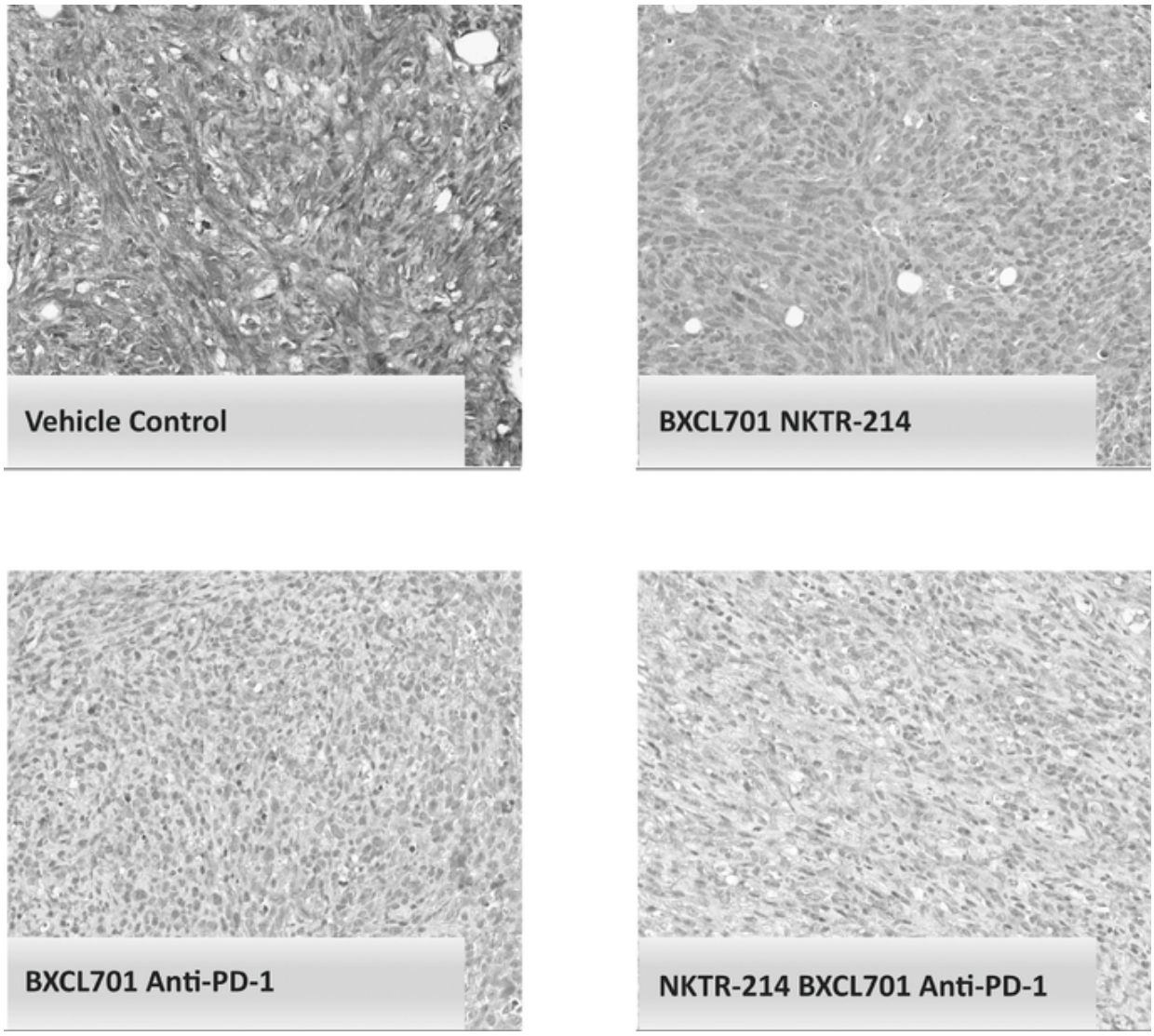


Figure 16b. IHC for BXCL701 target FAP revealed that BXCL701 significantly reduced FAP expression and that the double combination or triple combination containing BXCL701 and NKTR-214 had a stronger reduction.

BXCL701 Clinical Program in Pancreatic Cancer

The role of FAP+ CAF in mediating immuno-suppression has been well documented by leading investigators, including Dr. Louis Weiner, currently a director at the Lombardi Cancer Center at Georgetown University. We are collaborating with Dr. Weiner and his team to further characterize the activity of BXCL701 in the context of immune checkpoint resistance in combination with Keytruda.

As shown in the figure below, the clinical development plan for BXCL701 in pancreatic cancer, developed in collaboration with Dr. Weiner, will consist of two overlapping trials. We plan to initiate two Phase 2 open label trials with BXCL701 in patients with metastatic pancreatic cancer. The first trial will examine BXCL701 in the neoadjuvant setting (before surgery). We expect to enroll ten patients who will be treated for three weeks with BXCL701 before surgery. The trial will examine immune cell infiltration and activation and is expected to commence in the second half of 2018 with

results available in the first half of 2019. The second trial will examine BXCL701 in combination with Keytruda in approximately 30 patients that have previously received gemcitabine. We expect the second trial to commence in the second half of 2018 with preliminary results available in the first half of 2019. We believe this trial, if successful, could lay the foundation for a potential follow up registration trial in pancreatic cancer.

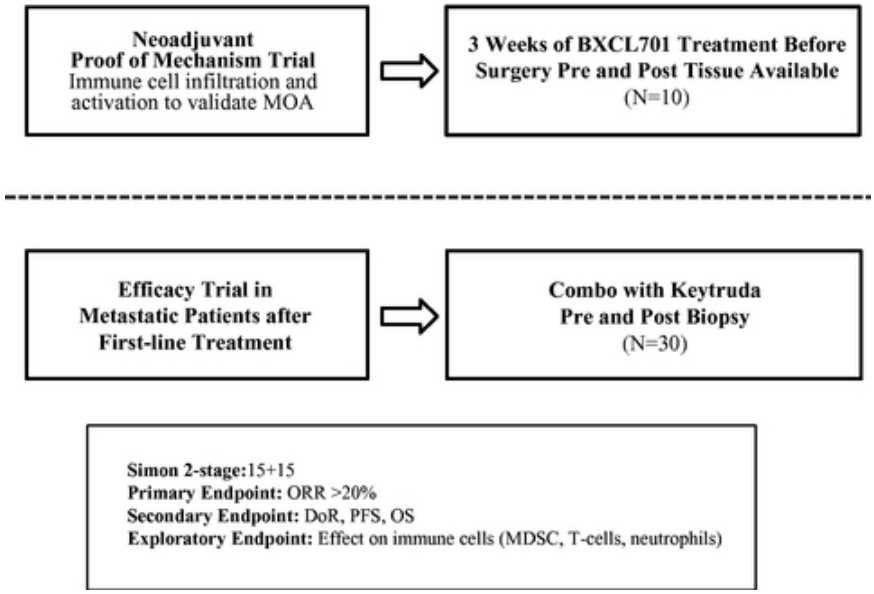


Figure 17. BXCL701 Phase 2 trial design in pancreatic cancer as a single agent (proof of mechanism of action, or MOA) and in combination with Keytruda (PoC).

Other Immuno–oncology Indications

In addition to tNEPC and pancreatic cancer, we plan to leverage our existing preclinical and clinical data to identify other cancer types with high unmet medical need that would benefit from BXCL701's novel mechanism of action. We are prioritizing those where the immuno-suppressive microenvironment is driven by the molecular and cellular targets of BXCL701 and where the single agent activity of approved immune checkpoint inhibitors is limited.

In addition, based on the mechanism of action described in the figure below, we believe BXCL701 provides a platform for combination with immunotherapy modalities that go beyond the currently approved immune checkpoint agents that target the PD-1/PD-L1 axis. Following our PoC trials, we plan to conduct clinical trials covering a broad range of additional combinations with other immunotherapy agents including:

- immune checkpoint inhibitors (other than PD-1/PD-L1);
- cellular therapies (CAR-T and chimeric antigen receptor natural killer cells);

- therapeutic vaccines; and/or
- antibody-dependent cell-mediated cytotoxicity, or ADCC, driven monoclonal antibodies.

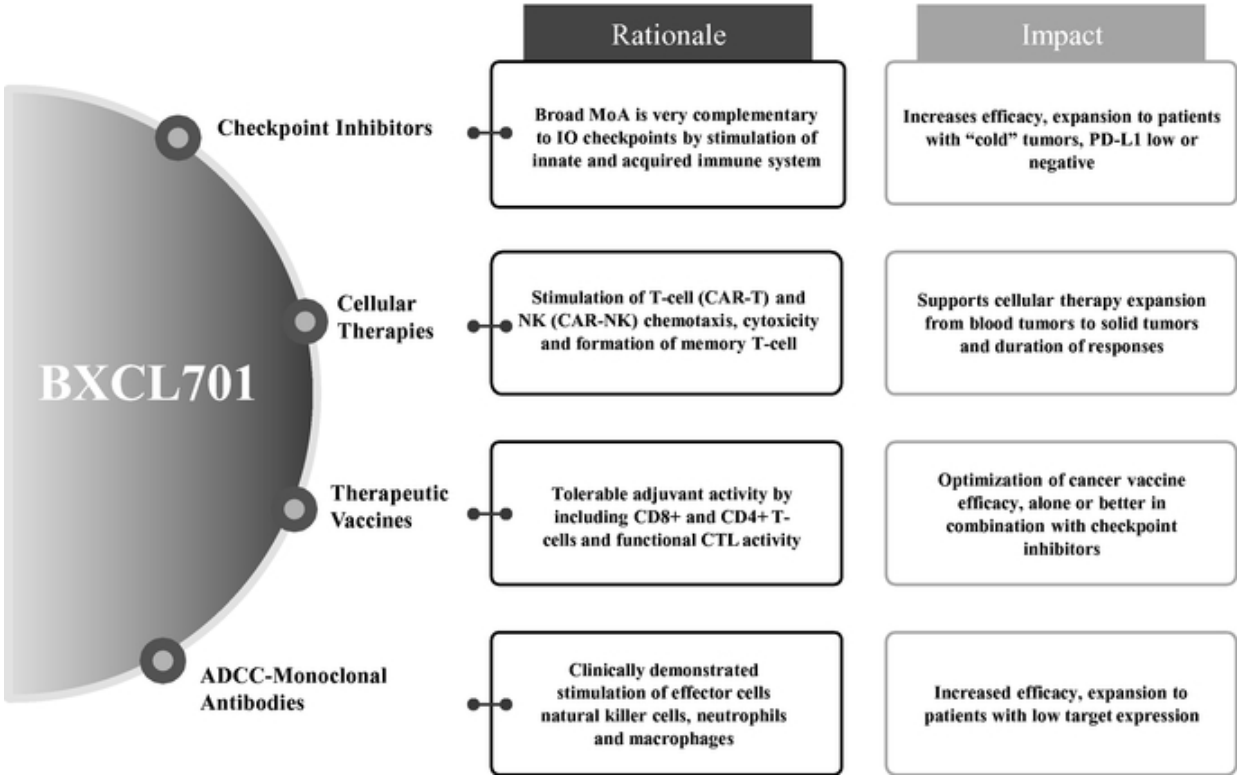


Figure 18. Mechanism of action-based rationale and impact for combination with BXCL701 and immunotherapy modalities beyond anti-PD-1/PD-L1.

Other Product Candidates

Neuroscience Program

We are targeting neuroscience disorders where there is high unmet medical need and therefore a requirement for symptom management is a priority (like agitation, seizures, dyskinesias) as well for transformative care for monogenic rare CNS disorders.

For symptomatic approaches, our neuroscience program is developing a FDA Section 505(b)(2) opportunities with a focus on treating symptoms for various neurological and psychiatric disorders. This entails re-innovating existing agents through formulation changes and deuteration. The utilization of EvolverAI has identified several monogenic diseases with available animal models across rare neuroscience diseases. We utilize proprietary algorithms to identify associated mechanisms with existing pharmacology to test whether these agents can improve the disease profile in the animal model either through disease modification or symptomatic manner. The agents identified must be those that we believe are Phase 2 ready with a potential for a short, cost-effective development plan (four to five years to NDA filing).

We have identified our next candidate as a FDA Section 505(b)(2) opportunity, BXCL502, for symptomatic improvement of a CNS disorder with a high unmet medical need. Additional product candidates are routinely screened, prioritized and selected using a combination of specific algorithms and relevant translation research, formulation and deuteration strategies.

Immuno-oncology Program

Our immuno-oncology program is based on utilizing a comprehensive map of all known relationships that link immuno-evasion and immuno-activation pathways and targets with thousands of pharmacological agents and tumor indications. This comprehensive map has permitted us to select a potential pipeline of candidates based on our ability to alter the tumor micro-environment and the potential to address relevant unmet medical needs for various tumor types.

The lead candidates are clinically validated in oncology and therefore represent opportunities where we believe clinical development risk may be reduced.

BXCL702 is an example of the set of oncology candidates. BXCL702 is designed to have a dual anti-tumor mechanism of action: a direct mechanism to kill tumor cells and an indirect mechanism to stimulate the anti-tumor activity of immuno-therapy agents. We believe BXCL702 offers the opportunity to bring the benefit of immuno-oncology to hematological malignancies. Based on the preclinical and clinical supporting data, FDA granted BXCL702 orphan drug designation for the treatment of AML.

Competition

The pharmaceutical and biotechnology industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. The immuno-oncology, neuroscience and rare disease segments of the industry in particular are highly competitive. While we believe that our technology, development experience and scientific knowledge provide competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and governmental agencies, and public and private research institutions.

Many of our competitors may have significantly greater financial resources and expertise in research and development, manufacturing, preclinical studies, conducting clinical trials, obtaining regulatory approvals and marketing approved medicines than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and in establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

The key competitive factors affecting the success of all of our product candidates, if approved, are likely to be their efficacy, safety, convenience, price, the effectiveness of companion diagnostics in guiding the use of related therapeutics, if any, the level of generic competition and the availability of reimbursement from government and other third-party payors.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize medicines that are safer, more effective, have fewer or less severe side effects, are more convenient or less expensive than any medicines we may develop. Our competitors also may obtain FDA or other regulatory approval for their medicines more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic medicines. There are many generic medicines currently on the market for certain of the indications that we are pursuing and additional generics are expected to become available over the coming years. If our therapeutic product candidates are approved, we expect that they will be priced at a significant premium over competitive generic medicines.

Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. If the product candidates of our priority programs are approved for the indications for which we are currently planning clinical trials, they will compete with the drugs discussed below and will likely compete with other drugs currently in development.

Neurological and Psychiatric Disorders

Drugs used for the acute treatment of agitation resulting from psychosis in schizophrenia and mania in bipolar disease are atypical antipsychotics administered IM and require patient restraint. These include IM aripiprazole, olanzapine, ziprasidone and haloperidol. Oral products include the benzodiazepines, lorazepam and midazolam. Saphris (sublingual tablet asenapine) is an atypical antipsychotic that has been prescribed for use in children and teens for acute treatment of manic or mixed episodes associated with bipolar disease. Adasuve (inhaled loxapine) from Alexza is also a non-invasive treatment. Avanir is currently in Phase 3 with Nuedexta, a combination of dextromethorphan and quinidine for treating chronic agitation in dementia.

Immuno-oncology

The immuno-oncology field is characterized by the rapid evolution of technologies and products and by fierce competition based on the development of compounds, often with similar mechanisms of action. Clinical development plans are further compounded by the possibility of overlapping intellectual property. A wide variety of commercial players, large pharmaceutical companies, established and emerging biotechnology companies, and several not-for-profit entities are actively developing potentially competitive products in immuno-oncology and in our lead indications.

While we believe our product candidates, technology, knowledge, and experience provide us with competitive advantages, we face competition from established and emerging pharmaceutical and biotechnology companies. Such companies include:

- **Major pharmaceutical companies developing multiple immuno-oncology agents:** AstraZeneca PLC, Bristol-Myers Squibb Company, Celgene Corporation, Merck & Co., Inc., Novartis AG, Pfizer Inc., Roche Holding Ltd. and Sanofi SA.

- **Companies developing agents aimed at stimulating the immune response:** AdaptImmune LLC, Idera Pharmaceuticals, Inc., Immune Design Corp., NewLink Genetic Corporation, Advaxis, Inc., Argos Therapeutics, Inc., Biovest International, Inc., ImmunoCellular Therapeutics, Ltd., Immune Design, Inc., Inovio Pharmaceuticals, Inc., Intrexon Corporation and Northwest Biotherapeutics, Inc.

- **Companies developing cell-based immunotherapy approaches:** Intrexon Corporation, Juno Therapeutics, Inc., Kite Pharma, Inc. (acquired by Gilead Sciences, Inc.), Novartis AG and Pfizer Inc.

Manufacturing

We do not have any manufacturing facilities or personnel. We currently rely, and expect to continue to rely, on third parties for the manufacturing of our product candidates for preclinical as well as for commercial manufacturing if our product candidates receive marketing approval.

For the commercial supply of Dex for our BXCL501 clinical program, potential vendors have been identified, and GMP and United States Pharmacopeia, or USP, grade material is readily available. ARx LLC, USA is responsible for the development and manufacturing of sublingual thin films for BXCL501, which is currently in progress.

We have contracted to restart the production of a clinical batch of BXCL701 under exclusivity with the original manufacturers for API and tablets. We intend to contact other suppliers, including potential strategic partners for the commercial material.

Commercialization

We plan to retain our worldwide commercialization rights for some of our key product candidates while for other product candidates we might consider collaboration opportunities to maximize returns.

While we currently have no sales, marketing or commercial product distribution capabilities and have no experience as a company in commercializing products, we intend to build our own commercialization organization and capabilities over time. When appropriate, we will decide whether to build a specialty sales force to manage commercialization for these product candidates on our own or in combination with a larger pharmaceutical partner, to maximize patient coverage in the United States and to support global expansion especially as our programs have substantial opportunity for additional follow-up indications alone or in combinations.

As product candidates advance through our pipeline, our commercial plans may change. Clinical data, the size of the development programs, the size of the target market, the size of a commercial infrastructure and manufacturing needs may all influence our United States, European Union and rest-of-world strategies.

Our Relationship with BioXcel Corporation

We are currently a 93% owned subsidiary of BioXcel and our pipeline compounds have been identified by applying BioXcel's R&D engine, EvolverAI, for drug re-innovation.

We have entered into an asset contribution agreement, effective June 30, 2017, with BioXcel, as amended and restated on November 7, 2017, or the Contribution Agreement, pursuant to which BioXcel agreed to contribute to us, and we agree to acquire from BioXcel, all of BioXcel's rights, title and interest in and to BXCL501, BXCL701, BXCL502 and BXCL702, collectively, the Candidates, and all of the assets and liabilities associated with the Candidates. In addition, pursuant to the Contribution Agreement, upon completion of this offering, BioXcel will grant us a first right to negotiate exclusive rights to any additional product candidates in the fields of neuroscience and immuno-oncology, that BioXcel may identify on its own, excluding the Candidates, and not in connection with BioXcel's provision of services to us under the Services Agreement as defined and described below. This option for first negotiation shall be valid for a period of five years from the date of this offering. Prior to the fifth anniversary of our initial public offering, BioXcel has also agreed to not provide product identification collaborative services to third parties in the fields of neuroscience or immuno-oncology when such third parties utilize EvolverAI. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Asset Contribution Agreement with BioXcel" for additional information.

We have entered into a separation and shared services agreement with BioXcel that took effect on June 30, 2017, as amended and restated on November 7, 2017, or the Services Agreement, pursuant to which BioXcel will allow us to continue to use the office space, equipment, services and leased employees based on the agreed upon terms and conditions for a payment of defined monthly and/or hourly fees. The parties have agreed that the services and office space provided under the Services Agreement shall decrease over time until the 12 month anniversary of the date of the Services Agreement, except for services to be provided by BioXcel through its subsidiary in India, which shall decrease until the 24 to 36 month anniversary of the date of the Services Agreement, provided such dates may be extended upon mutual agreement between the parties. On or before December 31, 2019, we shall have the option to enter into a collaborative services agreement with BioXcel pursuant to which BioXcel shall perform product identification and related services for us utilizing EvolverAI. BioXcel shall continue to make such product identification and related services available to us for at least 60 months from June 30, 2017. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Separation and Shared Services Agreement with BioXcel" for additional information.

In connection with the Services Agreement, BioXcel agreed to provide us a line of credit, which shall be capped at $1 million, or the Total Funding Amount, pursuant to the terms of a grid note, or the Grid Note. The Grid Note shall be payable upon the earlier of (i) the completion of this offering and (ii) December 31, 2018. As of December 31, 2017, we have drawn an amount of $371,000 under the Grid Note. See the section titled "Certain Relationships and Related Person Transactions—Amended and Restated Separation and Shared Services Agreement with BioXcel" for additional information.

Intellectual Property

Our policy is to protect and enhance the proprietary technologies, inventions, and improvements that are commercially important to our business by filing patent applications in the United States and other jurisdictions related to our proprietary technology, inventions, improvements and product candidates. We also rely on trademarks, trade secrets, and know-how relating to our proprietary technologies and product candidates, continuing innovation and in-licensing technology and products. This reliance is expected to develop, strengthen, and maintain our proprietary position for novel therapeutics and novel formulations of existing therapeutics across multiple therapeutic areas. We also plan to rely on data exclusivity market exclusivity and patent term extensions when available.

Patent Portfolio

We have filed patent applications to protect our proprietary drug programs in immuno-oncology, CNS and agitation. This encompasses our proprietary drug programs in immuno-oncology, CNS and agitation. These proprietary products and methods of use are covered in three separate Patent Cooperation Treaty applications, four pending national phase applications and three pending United States provisional applications to date. However, we intend to file national phase patent applications in all other major counties (Europe, Canada, Japan, Australia and China) in the future.

The term of individual patents depends upon the legal term for patents in the countries in which they are obtained. In most countries, including the United States, the patent term is 20 years from the earliest filing date of a non-provisional patent application. Depending upon the timing, duration and specifics of FDA approval of our product candidates, a United States patent we own or license may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent restoration term of up to five years as compensation for patent term lost during product development and the drug approval regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND, and the submission date of a NDA, plus the time between the submission date of an NDA and the approval of that application. Only one patent applicable to an approved drug is eligible for the extension and the application for extension must be made prior to expiration of the patent. The United States Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we intend to apply for restorations of patent term for some of our currently owned or licensed patents to add patent life beyond their current expiration date, depending on the expected length of clinical trials and other factors involved in the submission of the relevant NDA.

The patent positions of companies such as ours are generally uncertain and involve complex legal and factual questions. No consistent policy regarding the scope of claims allowable in patents in the field of method of use patents or reformulation patents has emerged in the United States. The relevant patent laws and their interpretation outside of the United States are also uncertain. Changes in either the patent laws or their interpretation in the United States and other countries may diminish our ability to protect our technology or product candidates and enforce the patent rights that we license, and also could affect the value of such intellectual property. In particular, our ability to stop third parties from making, using, selling,

offering to sell, or importing products that infringe our intellectual property will depend in part on our success in obtaining and enforcing patent claims that cover our technology, inventions, and improvements. With respect to both licensed and company-owned intellectual property, we cannot guarantee that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications we may file in the future, nor can we be sure that any patents that may be granted to us in the future will be commercially useful in protecting our products, the methods of use, or the manufacture of those products. Patent and other intellectual property rights in the pharmaceutical and biotechnology space are evolving and involve many risks and uncertainties. For example, third parties may have blocking patents that could be used to prevent us from commercializing our product candidates and practicing our proprietary technology, and the issued patents that we in-license and those that may issue in the future may be challenged, invalidated, or circumvented, which could limit our ability to stop competitors from marketing related products or could limit the term of patent protection that otherwise may exist for our product candidates. In addition, the scope of the rights granted under any issued patents may not provide us with protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop similar technologies that are outside the scope of the rights granted under any issued patents that we own or exclusively in-license. For these reasons, we may face competition with respect to our product candidates. Moreover, because of the extensive time required for development, testing, and regulatory review of a potential product, it is possible that, before any particular product candidate can be commercialized, any patent protection for such product may expire or remain in force for only a short period following commercialization, thereby reducing the commercial advantage the patent provides.

Midatech Data Purchase Agreement Related to BXCL701

On January 4, 2016, BioXcel executed a Data Purchase Agreement with Midatech Pharma US Inc., the successor of Dara Biosciences, itself successor of the original developer of Talabostat mesylate, or Talabostat, pursuant to which Midatech transferred to BioXcel all rights, title, and interests to all preclinical, clinicial, Chemistry, Manufacturing and Controls and any other relevant data related to Talabostat. Subsequently, Midatech also transferred the ownership of Talabostat IND 62379 to BioXcel and communicated such transfer to the FDA. This agreement was assigned to us pursuant to the Contribution Agreement.

Government Regulation

The FDA and comparable regulatory authorities in state and local jurisdictions and in other countries impose substantial and burdensome requirements upon companies involved in the clinical development, manufacture, marketing and distribution of drugs and medical devices, such as those we are developing. These agencies and other federal, state and local entities regulate, among other things, the research and development, testing, manufacture, quality control, safety, effectiveness, labeling, storage, record keeping, approval, advertising and promotion, distribution, post-approval monitoring and reporting, sampling and export and import of our product candidates.

U.S. Government Regulation of Drug Products

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending NDAs, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties.

The process required by the FDA before product candidates may be marketed in the United States generally involves the following:

- submission to the FDA of an IND application which must become effective before human clinical trials may begin and must be updated annually;
- completion of extensive preclinical laboratory tests and preclinical animal studies, all performed in accordance with the FDA's GLP regulations. Preclinical testing generally includes evaluation of our products in the laboratory or in animals to characterize the product and determine safety and efficacy;
- approval by an independent institutional review board, or IRB, at each clinical site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with good clinical practice, or GCP, requirements to establish the safety and efficacy of the product candidate for each proposed indication;
- submission to the FDA of an NDA after completion of all pivotal clinical trials;
- a determination by the FDA within 60 days of its receipt of an NDA to accept the filing for review;
- satisfactory completion of an FDA advisory committee review, if applicable;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facilities at which the active pharmaceutical ingredient, or API, and finished drug product are produced and tested to assess compliance with cGMP regulations and to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity;
- satisfactory completion of FDA audits of clinical trial sites to assure compliance with GCPs and the integrity of the clinical data;
- payment of user fees and securing FDA approval of the NDA; and
- compliance with any post-approval requirements, including the potential requirement to implement a REMS and the potential requirement to conduct post-approval studies.

Preclinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess potential safety and efficacy. An IND is a request for authorization from the FDA to administer an investigational drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocol(s) for human studies. The IND also includes results of preclinical studies or other human studies, as appropriate, as well as manufacturing information, analytical data and any available clinical data or literature to support the use of the investigational new drug. An IND must become effective before human clinical trials may begin. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to the proposed clinical trials. In such a case, the IND may be placed on clinical hold and the IND sponsor and the FDA must resolve any outstanding concerns or questions before clinical trials can begin. Accordingly, submission of an IND may or may not result in the FDA allowing clinical trials to commence.

Clinical trials involve the administration of the new investigational drug to human subjects under the supervision of qualified investigators in accordance with GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety, and the efficacy criteria to be evaluated. A protocol for

each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND.

Additionally, approval must also be obtained from each clinical trial site's IRB before the trials may be initiated, and the IRB must monitor the study until completed. There are also requirements governing the reporting of ongoing clinical trials and clinical trial results to public registries.

The clinical investigation of a drug is generally divided into three phases. Although the phases are usually conducted sequentially, they may overlap or be combined. The three phases of an investigation are as follows:

- **Phase 1.** Phase 1 includes the initial introduction of an investigational new drug into humans. Phase 1 clinical trials are typically closely monitored and may be conducted in patients with the target disease or condition or in healthy volunteers. These studies are designed to evaluate the safety, dosage tolerance, metabolism and pharmacologic actions of the investigational drug in humans, the side effects associated with increasing doses, and if possible, to gain early evidence on effectiveness. During Phase 1 clinical trials, sufficient information about the investigational drug's pharmacokinetics and pharmacological effects may be obtained to permit the design of well-controlled and scientifically valid Phase 2 clinical trials.

- **Phase 2.** Phase 2 includes controlled clinical trials conducted to preliminarily or further evaluate the effectiveness of the investigational drug for a particular indication(s) in patients with the disease or condition under study, to determine dosage tolerance and optimal dosage, and to identify possible adverse side effects and safety risks associated with the drug. Phase 2 clinical trials are typically well-controlled, closely monitored, and conducted in a limited patient population.

- **Phase 3.** Phase 3 clinical trials are generally controlled clinical trials conducted in an expanded patient population generally at geographically dispersed clinical trial sites. They are performed after preliminary evidence suggesting effectiveness of the drug has been obtained, and are intended to further evaluate dosage, clinical effectiveness and safety, to establish the overall benefit-risk relationship of the investigational drug product, and to provide an adequate basis for product approval.

A registration study is any clinical study, which adequately meets regulatory agency requirements for the evaluation of a product candidate's efficacy and safety such that it can be used to justify the approval of the product. Generally, pivotal studies are Phase 3 studies but may also be Phase 2 studies if the trial design provides a well-controlled and reliable assessment of clinical benefit, particularly in situations where there is an unmet medical need.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. The FDA, the IRB, or the clinical trial sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether or not a trial may move forward at designated check points based on access to certain data from the study. We may also suspend or terminate a clinical trial based on evolving business objectives and/or competitive climate.

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, detailed investigational drug product information is submitted to the FDA in the form of an NDA requesting approval to market the product for one or more indications.

The application includes all relevant data available from pertinent preclinical and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls and proposed labeling, among other things. Data can come from company-sponsored clinical trials intended to test the safety and effectiveness of a use of a product, or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and effectiveness of the investigational drug product to the satisfaction of the FDA.

In most cases, the submission of an NDA is subject to a substantial application user fee. Under the Prescription Drug User Fee Act, or PDUFA, guidelines that are currently in effect, the FDA has a goal of ten months from the date of "filing" of an NDA to review and act on the submission. This review typically takes twelve months from the date the NDA is submitted to FDA because the FDA has approximately two months to make a "filing" decision.

In addition, under the Pediatric Research Equity Act of 2003, or PREA, as amended and reauthorized, certain NDAs or supplements to an NDA must contain data that are adequate to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements.

The FDA also may require submission of a REMS plan to ensure that the benefits of the drug outweigh its risks. The REMS plan could include medication guides, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries, or other risk minimization tools.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the NDA submission has been accepted for filing, the FDA's goal is to review applications within ten months of submission or, if the application relates to an unmet medical need in a serious or life-threatening indication, six months from submission. The review process is often significantly extended by FDA requests for additional information or clarification. The FDA may refer the application to an advisory committee for review, evaluation and recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee but it typically follows such recommendations.

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

After the FDA evaluates the NDA and conducts inspections of manufacturing facilities where the drug product and/or its active pharmaceutical ingredient, or API, will be produced, it may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application is not ready for approval. A Complete Response Letter may require additional clinical data and/or an additional pivotal

Phase 3 clinical trial(s), and/or other significant, expensive and time-consuming requirements related to clinical trials, preclinical studies or manufacturing. Even if such additional information is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. The FDA could also approve the NDA with a REMS plan to mitigate risks, which could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. The FDA also may condition approval on, among other things, changes to proposed labeling, development of adequate controls and specifications, or a commitment to conduct one or more post-market studies or clinical trials. Such post-market testing may include Phase 4 clinical trials and surveillance to further assess and monitor the product's safety and effectiveness after commercialization. Regulatory approval of oncology products often requires that patients in clinical trials be followed for long periods to determine the overall survival benefit of the drug. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

After regulatory approval of a drug product is obtained, we are required to comply with a number of post-approval requirements. As a holder of an approved NDA, we would be required to report, among other things, certain adverse reactions and production problems to the FDA, to provide updated safety and efficacy information, and to comply with requirements concerning advertising and promotional labeling for any of our products. Also, quality control and manufacturing procedures must continue to conform to cGMP after approval to ensure and preserve the long-term stability of the drug product. In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. In addition, changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon us and any third-party manufacturers that we may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMP and other aspects of regulatory compliance.

We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our product candidates. Future FDA and state inspections may identify compliance issues at our facilities or at the facilities of our contract manufacturers that may disrupt production or distribution, or require substantial resources to correct. In addition, discovery of previously unknown problems with a product or the failure to comply with applicable requirements may result in, among other things,

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures. The FDA strictly regulates marketing,

labeling, advertising and promotion of products that are placed on the market. Drugs or devices may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability. Also, from time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. In addition, FDA regulations and guidance are often revised or reinterpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether legislative changes will be enacted, or FDA regulations, guidance or interpretations changed or what the impact of such changes, if any, may be.

Marketing Exclusivity

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, or ANDA, or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an approved NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, for new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active pharmaceutical ingredient. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA; however, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Available Special Regulatory Procedures

The FDA has various programs, including fast track designation, accelerated approval, priority review, and breakthrough therapy designation, which are intended to expedite or simplify the process for the development and FDA review of drugs that are intended for the treatment of serious or life threatening diseases or conditions and demonstrate the potential to address unmet medical needs. The purpose of these programs is to provide important new drugs to patients earlier than under standard FDA review procedures.

Fast Track Designation

To be eligible for a fast track designation, the FDA must determine, based on the request of a sponsor, that a product is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need. The FDA will determine that a product will fill an unmet medical need if it will provide a therapy where none exists or provide a therapy that may be potentially superior to existing therapy based on efficacy or safety factors. The FDA may review sections of the NDA for a fast track product on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA, the FDA

agrees to accept sections of the NDA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA.

Priority Review

The FDA may give a priority review designation to drugs that offer major advances in treatment, or provide a treatment where no adequate therapy exists. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of ten months under current PDUFA guidelines. Under the new PDUFA agreement, these six and ten month review periods are measured from the "filing" date rather than the receipt date for NDAs for new molecular entities, which typically adds approximately two months to the timeline for review and decision from the date of submission. Most products that are eligible for fast track designation are also likely to be considered appropriate to receive a priority review.

Breakthrough Therapy Designation

Under the provisions of the Food and Drug Administration Safety and Innovation Act, or FDASIA, passed in July 2012, a sponsor can request designation of a product candidate as a "breakthrough therapy." A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Drugs designated as breakthrough therapies are also eligible for accelerated approval. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

Accelerated Approval Pathway

The FDA may grant accelerated approval to a drug for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the drug has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. The FDA may also grant accelerated approval for such a condition when the product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, or IMM, and that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. Drugs granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. An intermediate clinical endpoint is a measurement of a therapeutic effect that is considered reasonably likely to predict the clinical benefit of a drug, such as an effect on IMM. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints, but has indicated that such endpoints generally may support accelerated approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a drug.

The accelerated approval pathway is most often used in settings in which the course of a disease is long and an extended period of time is required to measure the intended clinical benefit of a drug,

even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly. Thus, accelerated approval has been used extensively in the development and approval of drugs for treatment of a variety of cancers in which the goal of therapy is generally to improve survival or decrease morbidity and the duration of the typical disease course requires lengthy and sometimes large trials to demonstrate a clinical or survival benefit.

The accelerated approval pathway is usually contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the drug's clinical benefit. As a result, a product candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, would allow the FDA to withdraw the drug from the market on an expedited basis. All promotional materials for product candidates approved under accelerated regulations are subject to prior review by the FDA.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. We may explore some of these opportunities for our product candidates as appropriate.

The Hatch-Waxman Amendments: 505(b)(2) Approval Process

Section 505(b)(2) of the FDCA provides an alternate regulatory pathway to FDA approval for new or improved formulations or new uses of previously approved drug products. Specifically, Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. The applicant may rely upon the FDA's findings of safety and effectiveness for an approved product that acts as the Reference Listed Drug, or RLD. If the 505(b)(2) applicant can establish that reliance on FDA's previous findings of safety and effectiveness is scientifically appropriate, it may eliminate the need to conduct certain preclinical or clinical studies of the new product. The FDA may also require 505(b)(2) applicants to perform additional studies or measurements to support the change from the RLD. The FDA may then approve the new product candidate for all or some of the labeled indications for which the referenced product has been approved, as well as for any new indication sought by the Section 505(b)(2) applicant.

In seeking approval for a drug through an NDA, including a 505(b)(2) NDA, applicants are required to list with the FDA certain patents whose claims cover the applicant's product. Upon approval of an NDA, each of the patents listed in the application for the drug is then published in the Orange Book. Any applicant who files an ANDA seeking approval of a generic equivalent version of a drug listed in the Orange Book or a 505(b)(2) NDA referencing a drug listed in the Orange Book must certify to the FDA that (i) no patent information on the drug product that is the subject of the application has been submitted to the FDA; (ii) such patent has expired; (iii) the date on which such patent expires; or (iv) such patent is invalid or will not be infringed upon by the manufacture, use or sale of the drug product for which the application is submitted. This last certification is known as a paragraph IV certification. A notice of the paragraph IV certification must be provided to each owner of the patent that is the subject of the certification and to the holder of the approved NDA to which the ANDA or 505(b)(2) application refers. The applicant may also elect to submit a "section viii" statement certifying that its proposed label does not contain (or carves out) any language regarding the patented method-of-use rather than certify to a listed method-of-use patent. If the reference NDA holder and patent owners assert a patent challenge directed to one of the Orange Book listed patents within 45 days of the receipt of the paragraph IV certification notice, the FDA is prohibited from approving the application until the earlier of 30 months from the receipt of the paragraph IV certification expiration of the patent, settlement of the lawsuit or a decision in the infringement case

that is favorable to the applicant. The ANDA or 505(b)(2) application also will not be approved until any applicable non-patent exclusivity listed in the Orange Book for the branded reference drug has expired.

Our current and anticipated product candidates will be based on already approved active pharmaceutical ingredients, or APIs, rather than new chemical entities, and a formulation that has been through Phase 1 studies. Accordingly, we expect to be able to rely on information from previously conducted formulation studies involving our clinical development plans and our NDA submissions. For product candidates that involve novel fixed-dose combinations of existing drugs or for studies of an existing product or product candidate in a new indication, we believe we generally will be able to initiate Phase 2/3 studies without conducting any new non-clinical or Phase 1 studies, though the FDA may not agree with our conclusions and may require us to conduct additional clinical or preclinical studies prior to initiating Phase 3 or other pivotal clinical trials. In those instances where our product candidate is a pharmacokinetically enhanced version of an approved API, we will need to conduct certain non-clinical and Phase 1 studies to confirm the pharmacokinetic profile of the product candidate prior to conducting Phase 2/3 studies.

Orphan Drug Designation and Exclusivity

The Orphan Drug Act provides incentives for the development of products intended to treat rare diseases or conditions. Under the Orphan Drug Act, the FDA may grant orphan drug designation to a drug or biological product intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making a drug or biological product available in the United States for this type of disease or condition will be recovered from sales of the product. If a sponsor demonstrates that a drug is intended to treat rare diseases or conditions, the FDA will grant orphan drug designation for that product for the orphan disease indication. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation, however, does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

Orphan drug designation provides manufacturers with research grants, tax credits and eligibility for orphan drug exclusivity. If a product that has orphan drug designation subsequently receives the first FDA approval of the active moiety for that disease or condition for which it has such designation, the product is entitled to orphan drug exclusivity, which for seven years prohibits the FDA from approving another product with the same active ingredient for the same indication, except in limited circumstances. If a drug designated as an orphan product receives marketing approval for an indication broader than the orphan drug indication for which it received the designation, it will not be entitled to orphan drug exclusivity. Orphan drug exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same active ingredient for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. Further, the FDA may approve more than one product for the same orphan drug indication or disease as long as the products contain different active ingredients. Moreover, competitors may receive approval of different products for the indication for which the orphan drug product has exclusivity or obtain approval for the same product but for a different indication for which the orphan drug product has exclusivity. As a result, even if one of our product candidates receives orphan exclusivity, we may still be subject to competition. Orphan drug exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval

of the same drug or if our product candidate is determined to be contained within the competitor's product for the same indication or disease.

International Regulations

In addition to regulations in the United States, we are and will be subject to a variety of foreign regulations regarding development, approval, commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we must obtain the necessary approvals by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country and can involve additional product testing and additional review periods, and the time may be longer or shorter than that required to obtain FDA approval. The requirements governing, among other things, the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others. If we fail to comply with applicable foreign regulatory requirements, we may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

To obtain regulatory approval of an investigational drug under European Union regulatory systems, we must submit a marketing authorization application. The application used to file the NDA in the United States is similar to that required in Europe, with the exception of, among other things, country-specific document requirements. For other countries outside of the European Union, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, again, the clinical trials are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Centralized Procedure

The European Medicines Agency, or EMA, implemented the centralized procedure for the approval of human medicines to facilitate marketing authorizations that are valid throughout the EU. This procedure results in a single marketing authorization issued by the European Commission following a favorable opinion by the EMA that is valid across the European Union, as well as Iceland, Liechtenstein, and Norway. The centralized procedure is compulsory for human medicines that are: derived from biotechnology processes, such as genetic engineering, contain a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative disorders or autoimmune diseases and other immune dysfunctions, and officially designated orphan medicines. For medicines that do not fall within these categories, an applicant has the option of submitting an application for a centralized marketing authorization to the EMA, as long as the medicine concerned is a significant therapeutic, scientific or technical innovation, or if its authorization would be in the interest of public health.

There are also two other possible routes to authorize medicinal products in several European Union countries, which are available for investigational medicinal products that fall outside the scope of the centralized procedure: the decentralized procedure and the mutual recognition procedure. Under the decentralized procedure, an applicant may apply for simultaneous authorization in more than one EU country for medicinal products that have not yet been authorized in any EU country and that do not fall within the mandatory scope of the centralized procedure. Under the mutual recognition

procedure, a medicine is first authorized in one EU Member State, in accordance with the national procedures of that country. Following a national authorization, the applicant may seek further marketing authorizations from other EU countries under a procedure whereby the countries concerned agree to recognize the validity of the original, national marketing authorization.

In the EU, medicinal products designated as orphan drug products benefit from financial incentives such as reductions in marketing authorization application fees or fee waivers and 10 years of marketing exclusivity following medicinal product approval. For a medicinal product to qualify as orphan drugs: (i) it must be intended for the treatment, prevention or diagnosis of a disease that is life-threatening or chronically debilitating; (ii) the prevalence of the condition in the EU must not be more than five in 10,000 or it must be unlikely that marketing of the medicine would generate sufficient returns to justify the investment needed for its development; and (iii) no satisfactory method of diagnosis, prevention or treatment of the condition concerned can be authorized, or, if such a method exists, the medicine must be of significant benefit to those affected by the condition.

Accelerated Review (European Union)

Based on results of the Phase 3 clinical trial(s) submitted in an NDA, upon the request of an applicant, the FDA may grant the NDA a priority review designation, which sets the target date for FDA action on the application at six months. Priority review is granted where preliminary estimates indicate that a product, if approved, has the potential to provide a safe and effective therapy where no satisfactory alternative therapy exists, or a significant improvement compared to marketed products is possible. If criteria are not met for priority review, the NDA is subject to the standard FDA review period of 10 months. Priority review designation does not change the scientific/medical standard for approval or the quality of evidence necessary to support approval.

Under the Centralized Procedure in the European Union, the maximum timeframe for the evaluation of a marketing authorization application is 210 days (excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP, accelerated evaluation might be granted by the CHMP in exceptional cases, when a medicinal product is expected to be of a major public health interest, defined by three cumulative criteria: the seriousness of the disease (e.g. heavy disabling or life-threatening diseases) to be treated; the absence or insufficiency of an appropriate alternative therapeutic approach; and anticipation of high therapeutic benefit. In this circumstance, EMA ensures that the opinion of the CHMP is given within 150 days, excluding clock stops.

There can be no assurance that we or any of our partners would be able to satisfy one or more of these requirements to conduct preclinical or clinical trials or receive any regulatory approvals.

Pharmaceutical Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any drug products for which we obtain regulatory approval. In the United States 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. Third-party payors include government health administrative authorities, managed care providers, private health insurers and other organizations. The process for determining whether a payor will provide coverage for a drug product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the drug product. Third-party payors may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the FDA-approved drugs for a particular indication. Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity

and cost-effectiveness of our products, in addition to the costs required to obtain FDA approvals. Our product candidates may not be considered medically necessary or cost-effective. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

In 2003, the U.S. government enacted legislation providing a partial prescription drug benefit for Medicare beneficiaries, which became effective at the beginning of 2006. Government payment for some of the costs of prescription drugs may increase demand for any products for which we receive marketing approval. However, to obtain payments under this program, we would be required to sell products to Medicare recipients through prescription drug plans operating pursuant to this legislation. These plans will likely negotiate discounted prices for our products. Further, the Healthcare Reform Law substantially changes the way healthcare is financed in the United States by both government and private insurers. Among other cost containment measures, the Healthcare Reform Law establishes:

- an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents;
- a new Medicare Part D coverage gap discount program, in which pharmaceutical manufacturers who wish to have their drugs covered under Part D must offer discounts to eligible beneficiaries during their coverage gap period, or the "donut hole"; and
- a new formula that increases the rebates a manufacturer must pay under the Medicaid Drug Rebate Program.

We expect that federal, state and local governments in the United States will continue to consider legislation to limit the growth of healthcare costs, including the cost of prescription drugs. Future legislation could limit payments for pharmaceuticals such as the product candidates that we are developing.

Different pricing and reimbursement schemes exist in other countries. In the European Community, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national health care systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on health care costs in general, particularly prescription drugs, has become very intense. As a result, new products are facing increasingly high barriers to entry. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country.

The marketability of any products for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. In addition, an increasing emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is secured for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Other Healthcare Laws and Compliance Requirements

If we obtain regulatory approval for any of our product candidates, we may be subject to various federal and state laws targeting fraud and abuse in the healthcare industry. For example, in the United

States, there are federal and state anti-kickback laws that prohibit the payment or receipt of kickbacks, bribes or other remuneration intended to induce the purchase or recommendation of healthcare products and services or reward past purchases or recommendations. Violations of these laws can lead to civil and criminal penalties, including fines, imprisonment and exclusion from participation in federal healthcare programs.

The federal Anti-Kickback Statute prohibits persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, to induce either the referral of an individual, or the furnishing, recommending, or arranging for a good or service, for which payment may be made under a federal healthcare program, such as the Medicare and Medicaid programs. The reach of the Anti-Kickback Statute was broadened by the Healthcare Reform Law, which, among other things, amends the intent requirement of the federal Anti-Kickback Statute and the applicable criminal healthcare fraud statutes contained within 42 USC. §1320a-7b, effective March 23, 2010. Pursuant to the statutory amendment, a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, the Healthcare Reform Law provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act (discussed below) or the civil monetary penalties statute. Many states have adopted laws similar to the federal Anti-Kickback Statute, some of which apply to the referral of patients for healthcare items or services reimbursed by any source, not only the Medicare and Medicaid programs.

The federal False Claims Act imposes liability on any person who, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by a federal healthcare program. The "qui tam" provisions of the False Claims Act allow a private individual to bring civil actions on behalf of the federal government alleging that the defendant has submitted a false claim to the federal government, and to share in any monetary recovery. In addition, various states have enacted false claims laws analogous to the False Claims Act. Many of these state laws apply where a claim is submitted to any third-party payer and not merely a federal healthcare program. When an entity is determined to have violated the False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties of $5,500 to $11,000 for each separate false claim.

Also, the Health Insurance Portability and Accountability Act of 1996, or HIPAA, created several new federal crimes, including healthcare fraud, and false statements relating to healthcare matters. The health care fraud statute prohibits knowingly and willfully executing a scheme to defraud any health care benefit program, including private third-party payers. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for health care benefits, items or services.

In addition, we may be subject to, or our marketing activities may be limited by, HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, which established uniform standards for certain "covered entities" (healthcare providers, health plans and healthcare clearinghouses) and their business associates governing the conduct of certain electronic healthcare transactions and protecting the security and privacy of protected health information.

In order to raise sufficient financial resources to continue to advance our product candidates, we will need to address pricing pressures and potential third-party reimbursement coverage for our product candidates. In the United States and elsewhere, sales of pharmaceutical products depend in significant part on the availability of reimbursement to the consumer from third-party payors, such as government and private insurance plans. Third-party payors are increasingly challenging the prices charged for

medical products and services. It is and will continue to be time-consuming and expensive for us or our strategic collaborators to go through the process of seeking reimbursement from Medicare and private payors. Our products may not be considered cost effective, and coverage and reimbursement may not be available or sufficient to allow us to sell our products on a competitive and profitable basis.

The Physician Payment Sunshine Act

The Physician Payment Sunshine Act, or the Sunshine Act, which was enacted as part of the Patient Protection and Affordable Care Act, or the ACA, requires applicable manufacturers of drugs, devices, biologicals, or medical supplies covered under Medicare, Medicaid or the Children's Health Insurance Program, to report annually to the Secretary of the Department of Health and Human Services payments or other transfers of value made by that entity, or by a third party as directed by that entity, to physicians and teaching hospitals, or to third parties on behalf of physicians or teaching hospitals, during the course of the preceding calendar year. The Final Rule implementing the Sunshine Act, published on February 8, 2013, requires data collection on payments to begin on August 1, 2013. The first annual report, comprised of data collected from August 1, 2013 to December 31, 2013, is due March 31, 2014. Failure to comply with the reporting requirements can result in significant civil monetary penalties ranging from $1,000 to $10,000 for each payment or other transfer of value that is not reported (up to a maximum per annual report of $150,000) and from $10,000 to $100,000 for each knowing failure to report (up to a maximum per annual report of $1 million). We will be required to collect data on and report these payments.

In many foreign markets, including the countries in the European Union, pricing of pharmaceutical products is subject to governmental control. In the United States, there have been, and we expect that there will continue to be, a number of federal and state proposals to implement similar governmental pricing control.

Employees

As of December 31, 2017, we employed a total of four full-time employees and our parent, BioXcel, has two employees who provide services to us pursuant to our separation and shared services agreement between us and BioXcel. In addition, we will have access to certain of BioXcel employees and resources through the various agreements we have entered into with BioXcel. We are not a party to any collective bargaining agreements. We believe that we maintain good relations with our employees.

Facilities

Our corporate headquarters and executive offices are provided to us by BioXcel under the shared services agreement discussed above and are located in Branford, Connecticut. We believe that our existing facilities are suitable and adequate to meet our current needs. We intend to add new facilities or expand existing facilities as we add employees, and we believe that suitable additional or substitute space will be available as needed to accommodate any such expansion of our operations.

Legal Proceedings

We may be involved from time to time in ordinary litigation, negotiation, and settlement matters that will not have a material effect on our operations or finances. We are not currently party to any material legal proceedings, and we are not aware of any pending or threatened litigation against us that we believe could have a material adverse effect on our business, operating results or financial condition.

MANAGEMENT

Executive Officers and Directors

The following table sets forth the name, age and position of each of our executive officers, key employees and directors as of December 31, 2017.

Name	Age	Position
Executive Officers:		
Vimal Mehta, Ph.D.	57	Chief Executive Officer, President, Secretary and Director
Vincent J. O'Neill, M.D.	48	Chief Medical Officer
Richard Steinhart	60	Chief Financial Officer
Frank Yocca, Ph.D.	62	Chief Scientific Officer
Key Employees:		
Luca Rastelli, Ph.D.	50	Vice President—Oncology R&D
Chids Mahadevan	46	Vice President—Finance
Non-Employee Directors:		
Peter Mueller, Ph.D.	61	Chairman of the Board of Directors
Sandeep Laumas, M.D.	49	Director
Krishnan Nandabalan, Ph.D.	55	Director

Executive Officers

Vimal Mehta, Ph.D. has served as a director since April 2017 and as our Chief Executive Officer, President and Secretary since May 2017. He is a co-founder of BioXcel Corporation and has served as its Chairman of the Board since 2005 and its Chief Executive Officer since September 2014. Dr. Mehta has held various senior scientific and business development positions, including Senior Vice President of Business Development at London-based Inpharmatica Ltd, a global predictive informatics company, from 2002 to 2006 and Senior Vice President, Business Development for Jubilant Life Sciences, an integrated global pharmaceutical and life sciences company, from 2006 to 2007. Previously, Dr. Mehta served as Business Development Manager at CuraGen Corporation, a biotechnology company, from 1996 to 2002. He held multiple positions in the Department of Radiology at the University of Texas, Southwestern Medical Center from 1989 to 1996, including Postdoctoral Fellow, Instructor and Assistant Professor. Dr. Mehta holds a Ph.D. in Chemistry from the University of Delhi, India and completed a Post-Doctoral Fellowship in Chemistry at the University of Montpellier, France. During the length of his career, Dr. Mehta has garnered a deep understanding of the biopharma and healthcare ecosystem and has been actively involved in diverse global value generating initiatives encompassing corporate strategy and planning, global business development, and corporate fundraising. He has helped to shape the company's strategic and business trajectory and which the Board believes qualifies him to serve as a director of our company.

Vincent J. O'Neill, M.D. has served as our Chief Medical Officer since July 2017. He served as the Chief Medical Officer of Mirna Therapeutics, Inc. from April 2016 to May 2017. From June 2014 to May 2016, he served as the Chief Medical Officer of Exosome Diagnostics, Inc., a diagnostics company. From 2012 to 2014, Dr. O'Neill was global head Personalized of Medicine and Companion Diagnostics at Sanofi S.A., a pharmaceutical company. From 2009 to 2012, Dr. O'Neill served as Group Director at Genentech, Inc. where he was involved in the expanded approval of products such as Avastin and Tarceva. From 2006 to 2009, Dr. O'Neill served as Director, Discovery Medicine at GlaxoSmithkline plc. Dr. O'Neill holds an M.D., MBChd and M.Sc. in Pathology from the University of Glasgow, UK.

Richard I. Steinhart has served as our Chief Financial Officer since October 2017. From October 2015 to June 2017 he was Vice President and CFO at Remedy Pharmaceuticals, Inc. From January 2014 to September 2015 Mr. Steinhart worked as a financial and strategic consultant to the biotechnology and medical device industries. From April 2006 through December 2013, Mr. Steinhart was employed by MELA Sciences, Inc., as their Vice President, Finance and Chief Financial Officer, Treasurer and Secretary from April 2006 to April 2012 and as Sr. Vice President, Finance and Chief Financial Officer from April 2012 to December 2013. From May 1992 until joining MELA Sciences, Mr. Steinhart was a Managing Director of Forest Street Capital/SAE Ventures, a boutique investment banking, venture capital, and management consulting firm focused on healthcare and technology companies. Prior to Forest Street Capital/SAE Ventures, he was Vice President and Chief Financial Officer of Emisphere Technologies, Inc. Mr. Steinhart's other experience includes seven years at CW Group, Inc., a venture capital firm focused on medical technology and biopharmaceutical companies, where he was a General Partner and Chief Financial Officer. Mr. Steinhart is a member of the Board of Directors of Actinium Pharmaceuticals, Inc., a position he assumed in November 2013, and Atossa Genetics, Inc., where he began his service in March 2014. Mr. Steinhart serves as the Chairman of the Audit Committee at Actinium Pharmaceuticals, where he also sits on the Compensation and Corporate Governance Committees. Mr. Steinhart serves as the Chairman of Atossa Genetics Audit Committee and is a member of its Compensation Committee. He holds B.B.A. and M.B.A. degrees from Pace University and is a Certified Public Accountant (inactive).

Frank D. Yocca, Ph.D. has served as our Chief Scientific Officer since June 2017. From April 2015 to April 2017, he was Senior Vice President, CNS R&D of BioXcel. From 2005 to 2015, Dr. Yocca held multiple leadership roles at AstraZeneca plc, including Vice President, Strategy and Externalization, Neuroscience Virtual Innovative Medicine Unit (iMed) (2011-2015), Vice President and Head, Strategy Unit, CNS and Pain Innovative Medicine Unit (iMed) (2010 to 2011) and Vice President and Head, CNS Pain Discovery (2005 to 2010). Prior to this he was Executive Director at the Bristol Myers Squibb Pharmaceutical Research Institute from 1984 to 2004 where he served concurrent leadership responsibilities within the Neuroscience Clinical Group for Early and Late Clinical Development Studies. Prior to this Dr. Yocca served as Executive Director, Neuroscience Discovery from 1997 to 2003, where he was a collaborator in the development and implementation of corporate strategic plans and leader for the Neuroscience Biology Department in the discovery of psychiatry and Alzheimer's clinical candidates. He was a core member of the Abilify Product Development and Commercialization Team from 1999 to 2002 and a core member of the Early and Late Discovery and Development Teams from 1984 to 2001. Dr. Yocca holds a B.S. in biochemistry from Manhattan College and an M.S. in pharmacology and a Ph.D. in neuropharmacology for St. John's University.

Key Employees

Chids Mahadevan has served as our Vice President—Finance since June 2017. Since April 2015 he has served as Vice President—Finance and Chief Accounting Officer of BioXcel. Prior to joining BioXcel, From 2010 to 2015, Mr. Mahadevan was the Senior Vice President, Finance at GoldenSource Corp, an enterprise data management software company where he led the global finance and accounting team. From 2007 to 2010, he was the Director of Finance at inVentiv Health Inc., a professional services organization that accelerates the clinical and commercial success of biopharmaceutical companies worldwide. Mr. Mahadevan started his career at Ramco Systems, a provider of adaptive enterprise solutions in a global market in 1996 where he progressed to become Head of Finance for the United States operations and the Finance Lead for the global aviation software segment and remained until 2007. Mr. Mahadevan holds a Bachelors in Commerce from Madras University. Mr. Mahadevan is a Certified Public Accountant in the United States and also a Chartered Accountant from India.

Luca Rastelli, Ph.D. has served as our Vice President—Oncology R&D since June 2017. Previously, he was the Vice President of Oncology R&D of BioXcel from May 2015 to June 2017. Dr. Rastelli has more than 20 years of drug discovery and development experience in pharmaceutical, biotech and start-up companies. Dr. Rastelli has held multiple preclinical and clinical project leadership positions. He served as Head of Translational Oncology at Boston Strategics Corporation, a pharmaceutical research and development company, from 2013 to 2014, and as Global Project Leader at EMD Serono Inc., a subsidiary of Merck KGaA, Darmstadt, Germany from 2006 to 2013. Dr. Rastelli served as Senior Director Biology from 2003 to 2006 at Sopherion Therapeutics, Inc., a company that designed and developed, and commercialized novel anti-cancer drugs and molecules. Dr. Rastelli holds a Ph.D. in Molecular Biology of Development from the University of Geneva, Switzerland.

Non-Employee Directors

Peter Mueller, Ph.D. has served as a director of our company since April 2017 and Chairman of the Board since August 2017. With over 30 years of global pharma and biotech experience, Dr. Mueller is currently the President of the Mueller Health Foundation, a private foundation tackling globally lethal infectious diseases such as tuberculosis by addressing latency and the ever growing challenges of antimicrobial resistance. From 2014 to 2016, he was President of R&D and Chief Scientific Officer of Axcella Health, a biotechnology company. From 2003 to 2014, Dr. Mueller served as Executive Vice President Global Research and Development & Chief Scientific Officer for Vertex Pharmaceuticals, Incorporated, a biotechnology company. He was involved in the development of Incivek (2011), Kalydeco (2012), and Orkambi (2014). Prior to his tenure at Vertex, he served as Senior Vice President, Research and Development, for Boehringer Ingelheim Pharmaceuticals, Inc. overseeing global research programs (immunology, inflammation, cardiovascular diseases and gene therapy) and the development of all drug candidates of the company's worldwide portfolio in North and South America, Canada and Japan, beginning in 1997. He was involved in the development of Spiriva, Combivent, Atrovent and Viramune. Dr. Mueller received both an undergraduate degree and a Ph.D. in Chemistry at the Albert Einstein University of Ulm, Germany, where he also holds a Professorship in Theoretical Organic Chemistry. He completed fellowships in Quantum Pharmacology at Oxford University and in Biophysics at Rochester University. He is a member of various scientific and political societies and currently serves on the Board of Inhibikase Therapeutics and the US-India Chamber of Commerce Biotech. He also services as chairman of the Scientific Advisory Board of BioXcel and is an advisor to the University Iowa (CBB). We believe that Dr. Mueller's extensive experience in the life sciences industry as a scientist and executive qualifies him to serve as a director of our company.

Sandeep Laumas, M.D. has served as a director of our company since September 2017. He has served as a Director of BioXcel since May 2013. In August 2007, Dr. Laumas founded Bearing Circle Capital, an investment firm, and has served as its Managing Director since such time. Dr. Laumas was a Managing Director of North Sound Capital from 2003 to 2007, where he was responsible for the global healthcare investment portfolio. Dr. Laumas was an analyst at Balyasny Asset Management from 2001 to 2003. He began his career at Goldman Sachs & Co. in 1996 as an equity analyst in the healthcare investment banking division before transitioning to the healthcare equity research division. From February 2011 to February 2012 he was a member of the board of directors of Super Religare Laboratories Limited, Southeast Asia's largest clinical laboratory service company. Dr. Laumas also served as a Director of Parkway Holdings Ltd. from May to August 2010 and currently has served as a director of Innovate Biopharmaceuticals, Inc. since 2014. Dr. Laumas received his A.B. (Chemistry) from Cornell University in 1990, his M.D. from Albany Medical College, with a research year at the Dana-Farber Cancer Institute and completed his medical internship at the Yale University School of Medicine. Dr. Laumas has a novel industry perspective, particularly in both public and private investments and financial transactions in the healthcare arena, which we believe qualifies him to serve as a director of our company.

Krishnan Nandabalan, Ph.D. has served as a director of our company since May 2017. He is a co-founder of BioXcel and has served as its President and Secretary since 2005 and Chief Scientific Officer since September 2014. He has served as a director of BioXcel since March 2005. From August 2004 to September 2005, Dr. Nandabalan served as the Vice President of Corporate Development at Genaissance Pharmaceuticals, a population genomics company, from October 2000 to August 2004, he was Vice President of Product Development, Alliances and Business Development, and from October 1998 to October 2000, he was Executive Director of Technology Systems. Prior to this, he served as Group Leader of the Functional Genomics Group at CuraGen Corporation from January 1995 to September 1998. Dr. Nandabalan was also a Founding Director of Ayugen BioSciences, a privately held company that specializes in genomic tests and services, from March 2006 to October 2015. Dr. Nandabalan holds a B.Sc. and M.Sc. in agricultural science from Tamil Nadu Agricultural University and a Ph.D. in biochemistry and molecular biology from Indian Institute of Science. During his career, Dr. Nandabalan has acquired a thorough understanding of market trends impacting the global healthcare environment, the pharma value chain, the current unmet medical needs, and in applying novel technologies to solve these needs, which we believe qualifies him to serve as a director of our company.

Family Relationships

There are no family relationships among any of our executive officers or directors.

Composition of our Board of Directors

Our board of directors currently consists of four directors. Our amended and restated certificate of incorporation will provide that the number of directors on our board of directors shall be fixed exclusively by resolution adopted by our board of directors. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that our board of directors will be divided into three classes, as nearly equal in number as possible, with the directors in each class serving for a three-year term, and one class being elected each year by our stockholders.

When considering whether directors have the experience, qualifications, attributes or skills, taken as a whole, to enable our board of directors to satisfy its oversight responsibilities effectively in light of our business and structure, the board of directors focuses primarily on each person's background and experience as reflected in the information discussed in each of the directors' individual biographies set forth above. We believe that our directors provide an appropriate mix of experience and skills relevant to the size and nature of our business.

In accordance with our amended and restated certificate of incorporation and amended and restated bylaws, each of which will be in effect immediately prior to the consummation of this offering, our board of directors will be divided into three classes with staggered three year terms. At each annual meeting of stockholders after the initial classification, the successors to the directors whose terms will then expire will be elected to serve from the time of election and qualification until the third annual meeting following their election. Our directors will be divided among the three classes as follows:

- the Class I director will be Krishnan Nandabalan and his term will expire at the annual meeting of stockholders to be held in 2018;
- the Class II director will be Sandeep Laumas and his term will expire at the annual meeting of stockholders to be held in 2019; and
- the Class III directors will be Vimal Mehta and Peter Mueller and their terms will expire at the annual meeting of stockholders to be held in 2020.

Any increase or decrease in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of our board of directors may have the effect of delaying or preventing changes in control of our Company.

Pursuant to the terms of our amended and restated certificate of incorporation, directors may only be removed for cause by the affirmative vote of the holders of at least a majority of our outstanding shares of common stock which are present in person or by proxy and entitled to vote.

Director Independence

Prior to the consummation of this offering, our board of directors undertook a review of the independence of our directors and considered whether any director has a relationship with us that could compromise that director's ability to exercise independent judgment in carrying out that director's responsibilities. Our board of directors has affirmatively determined that Peter Mueller and Sandeep Laumas are each an "independent director," as defined under the Nasdaq rules.

Controlled Company Exception

After the consummation of this offering, BioXcel, will, in the aggregate, have more than 50% of the combined voting power for the election of directors. As a result, we will be a "controlled company" within the meaning of the Nasdaq rules and may elect not to comply with certain corporate governance standards, including that: (i) a majority of our board of directors consists of "independent directors," as defined under the Nasdaq rules; (ii) we have a nominating and corporate governance committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; (iii) we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and (iv) we perform annual performance evaluations of the nominating and corporate governance and compensation committees. We intend to rely on the foregoing exemptions provided to controlled companies under the Nasdaq rules. Therefore, immediately following the consummation of this offering, we may not have a majority of independent directors on our board of directors, an entirely independent nominating and corporate governance committee, an entirely independent compensation committee or perform annual performance evaluations of the nominating and corporate governance and compensation committees unless and until such time as we are required to do so. Accordingly, you may not have the same protections afforded to stockholders of companies that are subject to all of these corporate governance requirements. In the event that we cease to be a "controlled company" and our shares continue to be listed on The Nasdaq Stock Market, we will be required to comply with these provisions within the applicable transition periods. See "Risk Factors—Risks Related to Our Relationship with BioXcel" for additional information.

Committees of Our Board of Directors

Our board of directors directs the management of our business and affairs, as provided by Delaware law, and conducts its business through meetings of the board of directors and its standing committees. We will have a standing audit committee, nominating and corporate governance committee and compensation committee. In addition, from time to time, special committees may be established under the direction of the board of directors when necessary to address specific issues.

Audit Committee

Our audit committee will be responsible for, among other things:

- approve and retain the independent auditors to conduct the annual audit of our financial statements;

- review the proposed scope and results of the audit;
- review and pre-approve audit and non-audit fees and services;
- review accounting and financial controls with the independent auditors and our financial and accounting staff;
- review and approve transactions between us and our directors, officers and affiliates;
- establish procedures for complaints received by us regarding accounting matters;
- oversee internal audit functions, if any; and
- prepare the report of the audit committee that the rules of the Securities and Exchange Commission require to be included in our annual meeting proxy statement.

Upon the consummation of this offering, our audit committee will consist of Peter Mueller and Sandeep Laumas, with Sandeep Laumas serving as chair. Rule 10A-3 of the Exchange Act and the Nasdaq rules require that our audit committee have at least one independent member upon the listing of our common stock, have a majority of independent members within 90 days of the date of this prospectus and be composed entirely of independent members within one year of the date of this prospectus. Our board of directors has affirmatively determined that Peter Mueller and Sandeep Laumas each meet the definition of "independent director" under the Nasdaq rules, and that Peter Mueller and Sandeep Laumas meets the independence standards under Rule 10A-3. Each member of our audit committee meets the financial literacy requirements of the Nasdaq rules. In addition, our board of directors has determined that Sandeep Laumas will qualify as an "audit committee financial expert," as such term is defined in Item 407(d)(5) of Regulation S-K. Our board of directors will adopt a written charter for the audit committee, which will be available on our principal corporate website at *www.bioxceltherapeutics.com* substantially concurrently with the consummation of this offering. The information on any of our websites is deemed not to be incorporated in this prospectus or to be part of this prospectus.

Compensation Committee

Our compensation committee is responsible for, among other things:

- review and recommend the compensation arrangements for management, including the compensation for our president and chief executive officer;
- establish and review general compensation policies with the objective to attract and retain superior talent, to reward individual performance and to achieve our financial goals;
- administer our stock incentive plans; and
- prepare the report of the compensation committee that the rules of the Securities and Exchange Commission require to be included in our annual meeting proxy statement.

Upon the consummation of this offering, our compensation committee will consist of Peter Mueller and Sandeep Laumas, with Peter Mueller serving as chair. Our board has determined that Sandeep Laumas and Peter Mueller are "non-employee directors" as defined in Section 16b-3 of the Exchange Act. We intend to avail ourselves of the "controlled company" exception under the Nasdaq rules, which exempts us from the requirement that we have a compensation committee composed entirely of independent directors. Our board of directors will adopt a written charter for the compensation committee, which will be available on our principal corporate website at *www.bioxceltherapeutics.com* substantially concurrently with the consummation of this offering. The information on any of our websites is deemed not to be incorporated in this prospectus or to be part of this prospectus.

Nominating and Governance Committee

Our nominating and governance committee is responsible for, among other things:

- identify and nominate members of the board of directors;
- develop and recommend to the board of directors a set of corporate governance principles applicable to our company; and
- oversee the evaluation of our board of directors.

Upon the consummation of this offering, our nominating and corporate governance committee will consist of Sandeep Laumas, Peter Mueller and Vimal Mehta, with Peter Mueller serving as chair. We intend to avail ourselves of the "controlled company" exception under the Nasdaq rules, which exempts us from the requirement that we have a nominating and corporate governance composed entirely of independent directors. Our board of directors will adopt a written charter for the nominating and corporate governance committee, which will be available on our principal corporate website at *www.bioxceltherapeutics.com* substantially concurrently with the consummation of this offering. The information on any of our websites is deemed not to be incorporated in this prospectus or to be part of this prospectus.

Compensation Committee Interlocks and Insider Participation

None of our executive officers serves as a member of the board of directors or compensation committee (or other committee performing equivalent functions) of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Code of Ethics and Code of Conduct

Prior to the completion of this offering, we will adopt a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A copy of the code will be posted on our website, *www.bioxceltherapeutics.com*. In addition, we intend to post on our website all disclosures that are required by law or the Nasdaq rules concerning any amendments to, or waivers from, any provision of the code. The information on any of our websites is deemed not to be incorporated in this prospectus or to be part of this prospectus.

Limitations on Liability and Indemnification Matters

Upon the closing of this offering, our amended and restated certificate of incorporation will contain provisions that limit the liability of our current and former directors for monetary damages to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to the corporation or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

This limitation of liability does not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated certificate of incorporation to be in effect upon the closing of this offering will provide that we are authorized to indemnify our directors and officers to the fullest extent permitted by Delaware law. Our amended and restated bylaws to be in effect upon the closing of this offering will provide that we are required to indemnify our directors and executive officers to the fullest extent permitted by Delaware law. Our amended and restated bylaws will also provide that, upon satisfaction of certain conditions, we are required to advance expenses incurred by a director or executive officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. Our amended and restated bylaws will also provide our board of directors with discretion to indemnify our other officers and employees when determined appropriate by our board of directors. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by the board of directors. With certain exceptions, these agreements provide for indemnification for related expenses, including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain customary directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws to be in effect upon the closing of this offering may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

EXECUTIVE AND DIRECTOR COMPENSATION

Our named executive officers for the years ended December 31, 2017 and 2016 include our principal executive officer and the next most highly compensated executive officers during the years ended December 31, 2017 and 2016:

- Vimal Mehta, Ph.D., our Chief Executive Officer;
- Frank Yocca, Ph.D., our Chief Scientific Officer; and
- Richard Steinhart, our Chief Financial Officer.

Summary Compensation Table

The following table presents the compensation awarded to, earned by or paid to each of our named executive officers for the years ended December 31, 2017 and 2016.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)[2]	All Other Compensation ($)	Total ($)
Vimal Mehta, Ph.D.[1]	2017	147,000[3]	—	125,932	10,599[4]	282,406
Chief Executive Officer, President, Secretary and Director	2016	62,250	—	—	5,098	67,348
Frank Yocca, Ph.D.	2017	168,000[5]	—	41,999	—	185,249
Chief Scientific Officer	2016	108,000	—	—	—	108,000
Richard Steinhart[6]	2017	30,000	—	318,211	6,443[7]	354,654
Chief Financial Officer						

1 Dr. Mehta is an employee of our parent, BioXcel. He provides services to us pursuant to a services agreement between us and BioXcel.

2 These amounts represent the aggregate grant date fair value for option awards for the fiscal year ended December 31, 2017, computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, or ASC 718. A discussion of the assumptions used in determining grant date fair value may be found in Note 9 to our consolidated financial statements appearing elsewhere in this prospectus.

3 Includes $10,500 of salary that was accrued but unpaid during the fiscal year ended December 31, 2017.

4 Includes the dollar value of life insurance premiums and car allowance we paid for the benefit of Dr. Mehta.

5 Includes $34,500 of salary that was accrued by unpaid during the fiscal year ended December 31, 2017.

6 Mr. Steinhart was appointed Chief Financial Officer of the Company on October 2, 2017.

7 Includes the dollar value of COBRA payments we intend to reimburse to Mr. Steinhart.

Outstanding Equity Awards at December 31, 2017

The following table sets forth information concerning outstanding equity awards held by our 2017 named executive officers as of December 31, 2017. All equity awards set forth in the table below were granted under our Plan.

	Option Awards			
NAME	Number Of Securities Underlying Unexercised Options (#) Exercisable[1]	Number Of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Vimal Mehta, Ph.D.[1]	—	2,000	97.61	8/23/2027
Richard Steinhart[2]	—	354	1,314.20	10/2/2027
Frank Yocca, Ph.D.[3]	—	630	97.61	8/23/2027

1 On August 23, 2017, Dr. Mehta was awarded an option to purchase 2,000 shares of our common stock under our Plan. The shares underlying this option vest on March 31, 2018.

2 On October 2, 2017, Mr. Steinhart was awarded an option to purchase 354 shares of common stock under our Plan. The shares underlying this option vest as follows: 89 shares shall vest on October 1, 2018 and the remaining 265 options shall vest monthly over 36 months from October 2, 2018 through October 1, 2021.

3 On August 23, 2017, Dr. Yocca was awarded an option to purchase 630 shares of our common stock under our Plan. The shares underlying this option vest as follows: 157 shares shall vest on March 31, 2018 and the remaining 473 shares shall vest monthly over 36 months from August 23, 2018 through August 22, 2021.

Non-Employee Director Compensation

The following table presents the total compensation for each person who served as a non-employee member of our board of directors and received compensation for such service during the fiscal year ended December 31, 2017. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or non-equity awards to, or pay any other compensation to any of the non-employee members of our board of directors in 2017.

NAME	Fees Earned or Paid in Cash ($)	Option Awards ($)[1]	Total ($)
Peter Mueller, Ph.D.[2]	—	32,725	32,725
Sandeep Laumas, M.D.[3]	—	24,208	24,208
Krishnan Nandabalan, Ph.D.[4]	—	125,932	125,932

1 These amounts represent the grant date fair value of option awards granted to each director in the fiscal year ended December 31, 2017, computed in accordance with ASC 718. A discussion of the assumptions used in determining grant date fair value may be found in Note 9 to our consolidated financial statements appearing elsewhere in this prospectus.

2 As of December 31, 2017, Dr. Mueller held an option to purchase 157 shares of our common stock and an option to purchase 367. On December 28, 2017, the board of directors accelerated the vesting of options to purchase 524 shares of common stock previously granted to Dr. Mueller because of the unique scientific and business skills and guidance he has provided to us, which has resulted in an IND Exemption for BXCL501 and a clinical development plan for BXCL701. As a result, under ASC 718 this is

considered a type 1 probable to probable modification of a vesting condition and was accounted for under ASC 718-by expensing the balance of the award during the period ending December 31, 2017. The board has no plans to accelerate any other stock options granted by the Company.

3 As of December 31, 2017, Dr. Laumas held an option to purchase 367 shares of our common stock, none of which has vested as of such date.

4 As of December 31, 2017, Dr. Nandabalan held an option to purchase 2,000 shares of our common stock, none of which has vested as of such date.

Non-Employee Director Compensation Policy

We plan to adopt a non-employee director compensation policy, effective upon effectiveness of the registration statement of which this prospectus forms a part, that is designed to enable us to attract and retain, on a long-term basis, highly qualified non-employee directors. Under the policy, each director who is not an employee will be paid cash compensation from and after the completion of this offering, as set forth below:

	Member Annual Fee ($)	Chairman Additional Annual Fee ($)
Board of Directors	35,000	30,000
Audit Committee	7,500	20,000
Compensation Committee	5,000	10,000
Nominating and Corporate Governance Committee	3,500	7,000

We have also agreed to issue each non-employee director options to purchase 157 shares of our common stock upon completion of this offering with an exercise price equal to the initial public offering price of this offering and which shall vest in three equal installments beginning on the first anniversary of the closing date of this offering. In addition, on the date of each annual meeting of stockholders of our company beginning after the completion of this offering, each non-employee director will be granted an annual equity-based award granted under our 2017 Equity Incentive Plan, equal to , which shall vest in three equal installments beginning on the first anniversary of such meeting.

On August 23, 2017, in connection with the appointment of each non-employee director, we granted each of them options to purchase 367 shares of our common stock with an exercise price of $97.61, which vest as follows: options to purchase 123 shares shall vest of August 22, 2018 and options to purchase 122 shares shall vest on each of August 22, 2019 and August 22, 2020. In addition, on August 23, 2017, in connection with his appointment as chairman of the board of directors, we granted Dr. Mueller options to purchase 157 shares of our common stock with an exercise price of $97.19, which vest as follows: options to purchase 53 shares shall vest of August 22, 2018 and options to purchase 52 shares shall vest on each of August 22, 2019 and August 22, 2020. On December 28, 2017, the board of directors agreed to fully vest all of Dr. Mueller's options.

Employment Arrangements

Each of our executive officers, other than Frank Yocca, Vincent O'Neill and Richard Steinhart, are employed by our parent, BioXcel, and provide services to us pursuant to the Services Agreement between us and BioXcel. Dr. Yocca and Mr. Steinhart are each employed directly by us. Dr. O'Neill currently has a consulting agreement with us. On or prior to the date of this offering, BioXcel will have an employment agreement with each of our executive officers that sets forth the initial terms and conditions of employment. These agreements will provide for at-will employment and set forth the

executive officer's annual base salary, performance bonus target opportunity, initial equity incentive grant, terms of severance and eligibility for employee benefits. The annual target bonus that each executive officer will be eligible to receive will be payable based on our board of director's assessment of each executive officer's individual performance and overall company performance.

Prior to this offering, our business was owned by BioXcel. Therefore, BioXcel's historical compensation strategy has been determined primarily by BioXcel's Board of Directors. The discussion below of our employment arrangements may serve as a template for our anticipated compensation structure for our named executive officers on after completion of this offering. BioXcel's compensation philosophy may be relevant to us because it is anticipated that the elements of our compensation will be similar to the elements of BioXcel's compensation. However, our compensation committee will review the impact of our separation from BioXcel and will review all aspects of compensation and make appropriate adjustments in structuring our executive compensation arrangements. As of the date hereof, our board of directors has reviewed our executive compensation arrangements however the specifics of our compensation programs and policies have not yet been determined.

Employment Agreements with BioXcel

On September 14, 2014, Vimal Mehta entered into an executive employment agreement with BioXcel in which he agreed to serve as Chief Executive Officer. The term of the agreement was effective as of September 1, 2014, continues until September 1, 2017 and automatically renews for successive one year periods at the end of each term until either party delivers written notice of their intent not to review at least 60 days prior to the expiration of the then effective term. Dr. Mehta's base salary was $125,000 per year. He is eligible to receive a bonus of up to 50% of his base salary per year at the discretion of the BioXcel Compensation Committee or as agreed to by Dr. Mehta and the Board of Directors. Dr. Mehta was also entitled to a car lease allowance of up to $750 per month. Dr. Mehta is entitled to participate in any and all benefit plans, from time to time, in effect for senior management, along with vacation, sick and holiday pay in accordance with our policies established and in effect from time to time. Life insurance premium for Dr. Mehta amounting to $5,673.20 per quarter is paid by us as an additional benefit. The agreement may be terminated by us at any time and for any reason (or no reason), and with or without cause, provided if the agreement is terminated without cause, we are required to provide him at least 60 days prior written notice. Dr. Mehta may terminate the agreement for any reasons (or no reason) upon 60 days prior written notice. If the employment agreement is terminated by us other than for cause or if Dr. Mehta terminates his employment for good reason, which includes a change of control, Dr. Mehta shall receive (i) a severance payment equal to his base compensation for the year; (ii) immediate vesting of all unvested stock options and the extension of the exercise period of such options to the later of the longest period permitted by our stock option plans or ten years following the termination date; (iii) payment in respect of any bonus earned but not yet paid; and (iv) payment of the cost of medical insurance for a period of 12 months following termination.

The employment agreement also contains covenants: (i) restricting the executive from engaging in any activity competitive with our business during the term of the employment agreement and in the event of termination for cause or without good reason, for a period of one year thereafter; (ii) prohibiting the executive from disclosing confidential information regarding us; and (iii) soliciting our suppliers, employees, customers and prospective customers during the term of the employment agreement and for a period of one year thereafter. On December 21, 2017, BioXcel entered into an amendment to Dr. Mehta's employment agreement pursuant to which his base salary was increased to $240,000 per year and his monthly car allowance was increased to $1,250, effective September 1, 2017.

Employment Agreements with BTI

Dr. Mehta Employment Agreement

On the effective date of the registration statement of which this prospectus forms a part, Vimal Mehta will enter into an executive employment agreement with us in which he will agree to serve as Chief Executive Officer. The term of the agreement will continue for a period of 2 years from the date of execution and automatically renews for successive one year periods at the end of each term until either party delivers written notice of their intent not to review at least 90 days prior to the expiration of the then effective term. Dr. Mehta's base salary will $240,000 per year and will increased to $450,000 per year upon completion of the Company's initial public offering, or the IPO. Upon completion of the IPO, he will eligible to receive an annual bonus of up to 50% of his base salary per year at the discretion of the compensation committee as well as a special bonus of $90,000 payable upon completion of the IPO. Dr. Mehta is entitled to participate in any and all benefit plans, from time to time, in effect for senior management, along with vacation, sick and holiday pay in accordance with the Company's policies established and in effect from time to time. The agreement may be terminated by us at any time and for any reason (or no reason), and with or without cause, provided if the agreement is terminated without cause, we are required to provide him at least 90 days prior written notice. Dr. Mehta may terminate the agreement for any reasons (or no reason) upon 90 days prior written notice. If the employment agreement is terminated by us other than for cause or if Dr. Mehta terminates his employment for good reason, which includes a change of control, Dr. Mehta shall receive (i) a pro-rated bonus for the year in which such termination became effective, (ii) continued payment of his base compensation during the 24 month period following termination; (iii) immediate vesting of 50% all unvested equity awards held immediately prior to his termination date and (iv) payment of the cost of medical insurance for a period of 18 months following termination. If the Company terminates Dr. Mehta's employment and a change of control is either consummated (i) within 6 months of the effective date of such termination or (ii) no more than 12 months prior to the effective date of such termination, Dr. Mehta shall be entitled to receive a lump sum payment equal to 12 months of his base compensation. The employment agreement also contains covenants: (i) restricting the executive from engaging in any activity competitive with our business during the term of the employment agreement and for a period of one year thereafter; (ii) prohibiting the executive from disclosing confidential information regarding us; and (iii) soliciting our suppliers, employees, customers and prospective customers during the term of the employment agreement and for a period of one year thereafter.

Dr. Yocca Employment Agreement

On February 12, 2018, Frank Yocca entered into an executive employment agreement with us in which he has agreed to serve as Chief Scientific Officer. The term of the agreement will continue for a period of 2 years from the date of execution and automatically renews for successive one year periods at the end of each term until either party delivers written notice of their intent not to review at least 90 days prior to the expiration of the then effective term. Dr. Yocca's base salary will be $180,000 per year and will increased to $280,000 per year upon completion of the Company's IPO. Upon completion of the IPO, he will eligible to receive an annual bonus of up to 35% of his base salary per year at the discretion of the compensation committee as well as a special bonus of $15,000 payable upon completion of the IPO. In addition, upon completion of the IPO, Dr. Yocca received an option to purchase 154 shares of the Company's common stock at the fair market value on the date of grant. The options vest as follows: 25% on the first anniversary of the date of grant and the remaining 75% in equal monthly installments over the next 36 months following the first anniversary of the date of grant. These options will be issued under the Company's 2017 Equity Incentive Plan. Dr. Yocca is entitled to participate in any and all benefit plans, from time to time, in effect for senior management, along with vacation, sick and holiday pay in accordance with the Company's policies established and in effect from

time to time. The agreement may be terminated by us at any time and for any reason (or no reason), and with or without cause, provided if the agreement is terminated without cause, we are required to provide him at least 90 days prior written notice. Dr. Yocca may terminate the agreement for any reasons (or no reason) upon 90 days prior written notice. If the employment agreement is terminated by us other than for cause or if Dr. Yocca terminates his employment for good reason, which includes a change of control, Dr. Yocca shall receive (i) a pro-rated bonus for the year in which such termination became effective, and (ii) continued payment of his base compensation during the 3 month period following termination, or after the IPO, continued payment of his base compensation during the 6 month period following termination. After the IPO, if the Company terminates Dr. Yocca's employment and a change of control is either consummated (i) within 6 months of the effective date of such termination or (ii) no more than 12 months prior to the effective date of such termination, Dr. Yocca shall be entitled to receive a lump sum payment equal to 6 months of his base compensation. The employment agreement also contains covenants: (i) restricting the executive from engaging in any activity competitive with our business during the term of the employment agreement and for a period of one year thereafter; (ii) prohibiting the executive from disclosing confidential information regarding us; and (iii) soliciting our suppliers, employees, customers and prospective customers during the term of the employment agreement and for a period of one year thereafter.

Mr. Steinhart Employment Agreement

Richard Steinhart entered into an executive employment agreement with us, effective October 2, 2017, in which he has agreed to serve as Chief Financial Officer. The term of the agreement will continue for a period of 2 years from the effective date and automatically renews for successive one year periods at the end of each term until either party delivers written notice of their intent not to review at least 90 days prior to the expiration of the then effective term. Mr. Steinhart's base salary will be $10,000 per month and will increased to $280,000 per year upon completion of the Company's IPO. Upon completion of the IPO, he will eligible to receive an annual bonus of up to 40% of his base salary per year at the discretion of the compensation committee as well as a special bonus of $60,000 payable upon completion of the IPO. In addition, upon completion of the IPO, Mr. Steinhart received an option to purchase 136 shares of the Company's common stock at the fair market value on the date of grant. The options vest as follows: 25% on the first anniversary of the date of grant and the remaining 75% in equal monthly installments over the next 36 months following the first anniversary of the date of grant. These options will be issued under the Company's 2017 Equity Incentive Plan. Mr. Steinhart is entitled to participate in any and all benefit plans, from time to time, in effect for senior management, along with vacation, sick and holiday pay in accordance with the Company's policies established and in effect from time to time. The agreement may be terminated by us at any time and for any reason (or no reason), and with or without cause, provided if the agreement is terminated without cause, we are required to provide him at least 90 days prior written notice. Mr. Steinhart may terminate the agreement for any reasons (or no reason) upon 90 days prior written notice. If the employment agreement is terminated by us other than for cause or if Mr. Steinhart terminates his employment for good reason, which includes a change of control, Mr. Steinhart shall receive (i) a pro-rated bonus for the year in which such termination became effective, and (ii) continued payment of his base compensation during the 3 month period following termination, or after the IPO, continued payment of his base compensation during the 6 month period following termination. After the IPO, if the Company terminates Mr. Steinhart's employment and a change of control is either consummated (i) within 6 months of the effective date of such termination or (ii) no more than 12 months prior to the effective date of such termination, Mr. Steinhart shall be entitled to receive a lump sum payment equal to 6 months of his base compensation. The employment agreement also contains covenants: (i) restricting the executive from engaging in any activity competitive with our business during the term of the employment agreement and for a period of one year thereafter; (ii) prohibiting the executive from disclosing confidential information regarding us; and (iii) soliciting

our suppliers, employees, customers and prospective customers during the term of the employment agreement and for a period of one year thereafter.

2017 Equity Incentive Plan

Our board of directors adopted the 2017 Equity Incentive Plan, or the Plan, on August 22, 2017. The Plan will expire on August 21, 2027. The purpose of the Plan is to attract and retain key personnel and to provide a means for directors, officers, managers, employees, consultants and advisors to acquire and maintain an interest in the Company, which interest may be measured by reference to the value of its common stock. The material terms of the 2017 Plan are summarized below.

Administration

The Company's board of directors or a committee appointed by the board of directors (the "Committee") will administer the Plan. The Committee will have the authority, without limitation (i) to designate Participants (defined below) to receive awards under the Plan ("Awards"), (ii) determine the types of Awards to be granted to Participants, (iii) determine the number of shares of common stock to be covered by Awards, (iv) determine the terms and conditions of any Awards granted under the Plan, (v) determine to what extent and under what circumstances Awards may be settled in cash, shares of common stock, other securities, other Awards or other property, or canceled, forfeited or suspended, (vi) determine whether, to what extent, and under what circumstances the delivery of cash, common stock, other securities, other Awards or other property and other amounts payable with respect to an Award shall be made; (vii) interpret, administer, reconcile any inconsistency in, settle any controversy regarding, correct any defect in and/or complete any omission in the Plan and any instrument or agreement relating to, or Award granted under, the Plan; (viii) establish, amend, suspend, or waive any rules and regulations and appoint such agents as the Committee shall deem appropriate for the proper administration of the Plan; (ix) accelerate the vesting or exercisability of, payment for or lapse of restrictions on, Awards; (x) reprice existing Awards with shareholder approval or to grant Awards in connection with or in consideration of the cancellation of an outstanding Award with a higher price; and (xi) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of the Plan. The Committee will have full discretion to administer and interpret the Plan and to adopt such rules, regulations and procedures as it deems necessary or advisable and to determine, among other things, the time or times at which the awards may be exercised and whether and under what circumstances an award may be exercised.

Eligibility

Employees, directors, officers, advisors and consultants of the Company or its affiliates are eligible to participate in the Plan and are referred to as "Participants". The Committee has the sole and complete authority to determine who will be granted an Award under the Plan, however, it may delegate such authority to one or more officers of the Company under the circumstances set forth in the Plan.

Number of Shares Authorized

Up to 12,500 shares of common stock may be issued pursuant to awards granted under the Plan.

If an Award is forfeited, canceled, or if any Option terminates, expires or lapses without being exercised, the common stock subject to such Award will again be made available for future grant. However, shares that are used to pay the exercise price of an Option or that are withheld to satisfy the Participant's tax withholding obligation will not be available for re-grant under the Plan.

If there is any change in the Company's corporate capitalization or structure, the Committee in its sole discretion may make substitutions or adjustments to the number of shares of common stock

reserved for issuance under the Plan, the number of shares covered by Awards then outstanding under the Plan, the limitations on Awards under the Plan, the exercise price of outstanding Options and such other equitable substitution or adjustments as it may determine appropriate.

The Plan will have a term of ten years and no further Awards may be granted under the Plan after that date.

Awards Available for Grant

The Committee may grant Awards of Non-Qualified Stock Options, Incentive Stock Options, Stock Appreciation Rights, Restricted Stock Awards, Restricted Stock Units, Stock Bonus Awards, Performance Compensation Awards (including cash bonus awards) or any combination of the foregoing. Notwithstanding, the Committee may not grant to any one person in any one calendar year Awards (i) for more than 50% of the available shares under the Plan in the aggregate or (ii) payable in cash in an amount exceeding $10,000,000 in the aggregate.

Options

The Committee will be authorized to grant Options to purchase common stock that are either "qualified," meaning they are intended to satisfy the requirements of Section 422 of the Internal Revenue Code of 1986, as amended (the "Code") for Incentive Stock Options, or "non-qualified," meaning they are not intended to satisfy the requirements of Section 422 of the Code. Options granted under the Plan will be subject to the terms and conditions established by the Committee. Under the terms of the Plan, unless the Committee determines otherwise in the case of an Option substituted for another Option in connection with a corporate transaction, the exercise price of the Options will not be less than the fair market value (as determined under the Plan) of the shares of common stock on the date of grant. Options granted under the Plan will be subject to such terms, including the exercise price and the conditions and timing of exercise, as may be determined by the Committee and specified in the applicable award agreement. The maximum term of an Option granted under the Plan will be ten years from the date of grant (or five years in the case of an Incentive Stock Option granted to a 10% stockholder). Payment in respect of the exercise of an Option may be made in cash or by check, by surrender of unrestricted shares of common stock (at their fair market value on the date of exercise) that have been held by the participant for any period deemed necessary by the Company's accountants to avoid an additional compensation charge or have been purchased on the open market, or the Committee may, in its discretion and to the extent permitted by law, allow such payment to be made through a broker-assisted cashless exercise mechanism, a net exercise method, or by such other method as the Committee may determine to be appropriate.

Stock Appreciation Rights

The Committee will be authorized to award Stock Appreciation Rights (or SARs) under the Plan. SARs will be subject to such terms and conditions as established by the Committee. A SAR is a contractual right that allows a participant to receive, either in the form of cash, shares or any combination of cash and shares, the appreciation, if any, in the value of a share over a certain period of time. A SAR granted under the Plan may be granted in tandem with an option and SARs may also be awarded to a participant independent of the grant of an Option. SARs granted in connection with an Option shall be subject to terms similar to the Option which corresponds to such SARs. SARs shall be subject to terms established by the Committee and reflected in the award agreement.

Restricted Stock

The Committee will be authorized to award Restricted Stock under the Plan. The Committee will determine the terms of such Restricted Stock awards. Restricted Stock are shares of common stock that

generally are non-transferable and subject to other restrictions determined by the Committee for a specified period. Unless the Committee determines otherwise or specifies otherwise in an award agreement, if the Participant terminates employment or services during the restricted period, then any unvested restricted stock will be forfeited.

Restricted Stock Unit Awards

The Committee will be authorized to award Restricted Stock Unit awards. The Committee will determine the terms of such Restricted Stock Units. Unless the Committee determines otherwise or specifies otherwise in an award agreement, if the Participant terminates employment or services during the period of time over which all or a portion of the units are to be earned, then any unvested units will be forfeited. At the election of the Committee, the Participant will receive a number of shares of common stock equal to the number of units earned or an amount in cash equal to the fair market value of that number of shares at the expiration of the period over which the units are to be earned or at a later date selected by the Committee.

Stock Bonus Awards

The Committee will be authorized to grant Awards of unrestricted shares of common stock or other Awards denominated in shares of common stock, either alone or in tandem with other Awards, under such terms and conditions as the Committee may determine.

Performance Compensation Awards

The Committee will be authorized to grant any Award under the Plan in the form of a Performance Compensation Award by conditioning the vesting of the Award on the attainment of specific performance criteria of the Company and/or one or more affiliates, divisions or operational units, or any combination thereof, as determined by the Committee. The Committee will select the performance criteria based on one or more of the following factors: (i) revenue; (ii) sales; (iii) profit (net profit, gross profit, operating profit, economic profit, profit margins or other corporate profit measures); (iv) earnings (EBIT, EBITDA, earnings per share, or other corporate profit measures); (v) net income (before or after taxes, operating income or other income measures); (vi) cash (cash flow, cash generation or other cash measures); (vii) stock price or performance; (viii) total stockholder return (stock price appreciation plus reinvested dividends divided by beginning share price); (ix) economic value added; (x) return measures (including, but not limited to, return on assets, capital, equity, investments or sales, and cash flow return on assets, capital, equity, or sales); (xi) market share; (xii) improvements in capital structure; (xiii) expenses (expense management, expense ratio, expense efficiency ratios or other expense measures); (xiv) business expansion or consolidation (acquisitions and divestitures); (xv) internal rate of return or increase in net present value; (xvi) working capital targets relating to inventory and/or accounts receivable; (xvii) inventory management; (xviii) service or product delivery or quality; (xix) customer satisfaction; (xx) employee retention; (xxi) safety standards; (xxii) productivity measures; (xxiii) cost reduction measures; and/or (xxiv) strategic plan development and implementation.

Transferability

Each Award may be exercised during the Participant's lifetime only by the Participant or, if permissible under applicable law, by the Participant's guardian or legal representative and may not be otherwise transferred or encumbered by a Participant other than by will or by the laws of descent and distribution. The Committee, however, may permit Awards (other than Incentive Stock Options) to be transferred to family members, a trust for the benefit of such family members, a partnership or limited liability company whose partners or stockholders are the Participant and his or her family members or anyone else approved by it.

Amendment

The Plan will have a term of ten years. The Company's board of directors may amend, suspend or terminate the Plan at any time; however, shareholder approval to amend the Plan may be necessary if the law or SEC so requires. No amendment, suspension or termination will materially and adversely affect the rights of any Participant or recipient of any Award without the consent of the Participant or recipient.

Change in Control

Except to the extent otherwise provided in an Award or required by applicable law, in the event of a Change in Control (as defined in the Plan), upon the occurrence of a Change in Control, the Committee is authorized, but not obligated, to make any of the following adjustments (or any combination thereof) in the terms and conditions of outstanding Awards: (i) continuation or assumption of outstanding Awards by the surviving company; (ii) substitution by the surviving company of equity, equity-based and/or cash awards with substantially the same terms for outstanding Awards; (iii) accelerated exercisability, vesting and/or lapse of restrictions under outstanding Awards immediately prior to the occurrence of the Change in Control; (iv) upon written notice, provide that any outstanding Awards must be exercised, to the extent then exercisable, during a reasonable period determined by the Committee and at the end of such period, any unexercised Awards will terminate; and (v) cancellation of all or any portion of outstanding Awards for fair value (in the form of cash, shares or other property) and which value may be zero.

2017 Option Grants

On August 23, 2017, we issued the following options to purchase shares of our common stock and on such vesting terms at a price of $97.61 per share under the Plan to our executive officers, strategic advisors, directors and key employees as follows:

Name	Options Granted	Vesting Schedule
Vimal Mehta, Ph.D.	2,000	Shares shall vest on March 31, 2018.
Krishnan Nandabalan, Ph.D.	2,000	Shares shall vest on March 31, 2018.
Peter Mueller, Ph.D.	367	Shares vested in December 2017.
Sheila Gujrathi, Ph.D.	367	Options to purchase 123 shares shall vest of August 22, 2018 and options to purchase 122 shares shall vest on each of August 22, 2019 and August 22, 2020.
Steve Paul, M.D.	367	Options to purchase 123 shares shall vest of August 22, 2018 and options to purchase 122 shares shall vest on each of August 22, 2019 and August 22, 2020.
Peter Mueller, Ph.D.	157	Shares vested in December 2017.
Frank Yocca, Ph.D.	630	Options to purchase 157 shares shall vest on March 31, 2018, and the remaining 473 shares vesting monthly over 36 months from August 23, 2018 through August 22, 2021.
Chids Mahadevan	393	Options to purchase 98 shares shall vest on March 31, 2018, and the remaining 295 monthly over 36 months from August 23, 2018 through August 22, 2021.
Vince O'Neill, M.D.	525	Options to purchase 131 shares shall vest on August 22, 2018, and the remaining 394 shares vesting monthly over 36 months from August 23, 2018 through August 22, 2021.
Sandeep Laumas, M.D.	367	Options to purchase 123 shares shall vest of August 22, 2018 and options to purchase 122 shares shall vest on each of August 22, 2019 and August 22, 2020.
Luca Rastelli, Ph.D.	262	Options to purchase 66 shares shall vest on August 22, 2018 and options to purchase 196 shares shall vest over 36 months from August 23, 2018 through August 22, 2021.

On October 2, 2017, we issued Richard Steinhart an option to purchase 354 shares of common stock at a price of $1,314.20 under our Plan. The shares underlying this option vest as follows: 89 shares shall vest on October 1, 2018 and the remaining 265 options shall vest monthly over 36 months from October 2, 2018 through October 1, 2021.

We have also agreed to issue our advisors Drs. Paul and Gujrathi options to purchase 157 shares of our common stock upon completion of this offering with an exercise price equal to the initial public offering price of this offering and which shall vest in three installments beginning on the first anniversary of the closing date of this offering.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following is a summary of transactions and series of similar transactions, since our inception on March 29, 2017 to which we have been a participant in which the amount involved exceeded or will exceed $120,000 and in which any of our director, executive officer, holder of more than 5% of our capital stock, promotor or certain control person or any member of their immediate family had or will have a direct or indirect material interest.

Amended and Restated Asset Contribution Agreement with BioXcel

We have entered into an asset contribution agreement, effective June 30, 2017, with BioXcel, as amended and restated on November 7, 2017, or the Contribution Agreement, pursuant to which BioXcel agreed to contribute to us, and we agree to acquire from BioXcel, all of BioXcel's rights, title and interest in and to BXCL501, BXCL701, BXCL502 and BXCL702, collectively, the Candidates, and all of the assets and liabilities associated with the Candidates, in consideration for (i) 40,000 shares of our common stock, (ii) $1 million upon completion of this offering, (ii) $500,000 upon the later of the 12 month anniversary of this offering and the first dosing of a patient in the bridging bioavailability/bioequivalence study for the BXCL501 program, (iii) $500,000 upon the later of the 12 month anniversary of this offering and the first dosing of a patient in the Phase 2 PoC open label monotherapy or combination trial with Keytruda for the BXCL701 program and (iv) a one-time payment of $5 million within 60 days after the achievement of $50 million in cumulative net sales of any product or combination of products resulting from the development and commercialization of any one of the Candidates or a product derived therefrom.

In addition, pursuant to the Contribution Agreement, upon completion of this offering, BioXcel will grant us a first right to negotiate exclusive rights to any additional product candidates in the fields of neuroscience and immuno-oncology, or the Option Field, that BioXcel may identify on its own, excluding the Candidates, and not in connection with BioXcel's provision of services to us under the Services Agreement as defined and described below. This option for first negotiation shall be valid for a period of five years from the date of this offering. Within 60 days of identifying a potential product candidate in the Option Field, BioXcel shall present such identified candidate to us and we shall then have up to 180 days in which to evaluate such product candidate, or the Evaluation Period. If we wish to negotiate for the exclusive rights to such product candidate, we shall notify BioXcel in writing prior to the end of the Evaluation Period, and upon such notification, we and BioXcel shall negotiate in good faith commercially reasonable terms pursuant to which we can receive BioXcel's rights to such product candidate. If we are unable to mutually agree, in writing, within 90 days after the end of the Evaluation Period to terms regarding our rights to develop and/or commercialize such product candidate, BioXcel shall be free to develop and/or commercialize such product candidate either by itself or with one or more third parties. Prior to the fifth anniversary of this offering, BioXcel has also agreed to not provide product identification collaborative services to third parties in the fields of neuroscience or immuno-oncology when such third parties utilize EvolverAI.

Amended and Restated Separation and Shared Services Agreement

We have entered into a separation and shared services agreement, dated June 30, 2017, or the Effective Date, with BioXcel, as amended and restated on November 7, 2017, or the Services Agreement, pursuant to which BioXcel will provide us with shared office space and equipment, shared services, including the use of EvolverAI, leased employee services and financial support and payment, until the termination of the agreement as described below. In consideration for the use of office space and equipment as well as for general administrative support and payroll services, we have agreed to pay BioXcel a fixed monthly fee of $2,850 as set forth in the Services Agreement. In addition, any services related to intellectual property prosecution and management will be provided at an hourly rate of $250, subject to increase upon completion of the this offering to an hourly rate of $500, for a maximum of 20 hours per month. Any services provided by BioXcel through its subsidiary in India will be provided at

hourly rates based on the same rates offered to third parties in an arms length transaction as set forth in the Services Agreement. Finally, BioXcel has agreed to provide us the services of Vimal Mehta and Chids Mahadevan, our Chief Executive Officer and Vice President—Finance, respectively, at 90% of their aggregate compensation, which as of the date of this offering is currently $240,000 and $220,000, respectively. We have agreed to pay invoices generated by BioXcel within 60 days of receipt thereof.

On or before December 31, 2019, we shall have the option to enter into a collaborative services agreement with BioXcel pursuant to which BioXcel shall perform product identification and related services for us utilizing EvolverAI. We have agreed that this agreement will be negotiated in good faith and that such agreement will incorporate reasonable market based terms, including consideration for BioXcel reflecting a low, single-digit royalty on net sales and reasonable development and commercialization milestone payments, provided that (i) development milestones shall not exceed $10 million in the aggregate and not be payable prior to proof of concept in humans and (ii) commercialization milestones shall be based on reaching annual net sales levels, be limited to 3% of the applicable net sales level, and not exceed $30 million in the aggregate. BioXcel shall continue to make such product identification and related services available to us for at least 60 months after the Effective Date.

In connection with the Services Agreement, BioXcel agreed to provide us a line of credit, which shall be capped at $1 million, or the Total Funding Amount, pursuant to the terms of the grid note (as discussed below), or the Grid Note. We have also agreed to reimburse BioXcel for its contributed services and support to us in connection with our organization and development prior to the date of the Grid Note in the amount of $562,000, subsequently reduced to $440,000 as of December 31, 2017 which amount shall be payable upon the earlier of (i) 30 days after the completion of this offering and (ii) December 31, 2018.

The parties have agreed that the services and office space provided under the Services Agreement shall decrease over time until the 12 month anniversary of the Effective Date, except for services to be provided by BioXcel through its subsidiary in India, which shall decrease until the 24 to 36 month anniversary of the Effective Date, provided such dates may be extended upon mutual agreement between the parties, collectively, the Term.

The Services Agreement shall terminate at the end of the Term, however, it may be terminated upon the mutual written agreement of the parties. In addition, the Services Agreement may be terminated by the non-defaulting party upon or after the occurrence of a material breach by the other party that is uncured within 30 days after receipt of written notification of such breach. If such breach is not correctable within 30 days, the correction must be initiated within 30 days and thereafter diligently pursued thereafter. Lastly, the shared services agreement may be terminated if either we become bankrupt or insolvent, make any assignment for the benefit of creditors, or if a receive is appointed and such proceeding is not vacated or terminated within 30 days after its commencement or institution.

Grid Note

In connection with the Services Agreement, BioXcel agreed to provide us a line of credit up to the Total Funding Amount pursuant to the terms of the Grid Note. BioXcel shall not be obligated to fund our operations beyond the Total Funding Amount, provided, in the event we determine that we will require additional funding to support our operations and to execute the plan of separation from BioXcel, we and BioXcel will, in good faith, assess increasing the Total Funding Amount, and, shall amend the terms of the Grid Note or execute a new note to reflect any new funding as agreed upon between the parties. The Grid Note shall be payable upon the earlier of (i) the completion of this offering and (ii) December 31, 2018, together with interest on the unpaid balance of each advance, which shall accrue at a rate per annum equal to the applicable federal rate for short-term loans as of the date hereof, in each case calculated based on a 365-day year and actual days elapsed. As of December 31, 2017, we have drawn an amount of $371,000 under the Grid Note.

Other Transactions

On September 29, 2017, we sold 175 shares of our common stock to Peter Mueller, the chairman of our board of directors, at a price of $1,142.86 share for aggregate gross proceeds to us of $200,000.

On January 3, 2018, we sold 614 shares of our common stock to Peter Mueller, the chairman of our board of directors, at a price of $1,629.45 share for aggregate gross proceeds to us of approximately $1,000,000.

We have granted stock options to members of our board of directors and executive officers. For a description of these stock options, see the section titled "Executive and Director Compensation."

Indemnification Agreements

In connection with this offering, we will enter into indemnification agreements with each of our directors and executive officers. These indemnification agreements will provide the directors and executive officers with contractual rights to indemnification and expense advancement that are, in some cases, broader than the specific indemnification provisions contained under Delaware law. See "Description of Share Capital—Indemnification of Directors and Officers" for additional information regarding indemnification under Delaware law and our amended and restated by-laws.

Related Person Transaction Policy

Prior to this offering, we have not had a formal policy regarding approval of transactions with related parties. We expect to adopt a related person transaction policy that sets forth our procedures for the identification, review, consideration and approval or ratification of related person transactions. The policy will become effective immediately upon the execution of the underwriting agreement for this offering. For purposes of our policy only, a related person transaction is a transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we and any related person are, were or will be participants in which the amount involved exceeds $120,000. Transactions involving compensation for services provided to us as an employee or director are not covered by this policy. A related person is any executive officer, director or beneficial owner of more than 5% of any class of our voting securities, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, if a transaction has been identified as a related person transaction, including any transaction that was not a related person transaction when originally consummated or any transaction that was not initially identified as a related person transaction prior to consummation, our management must present information regarding the related person transaction to our audit committee, or, if audit committee approval would be inappropriate, to another independent body of our board of directors, for review, consideration and approval or ratification. The presentation must include a description of, among other things, the material facts, the interests, direct and indirect, of the related persons, the benefits to us of the transaction and whether the transaction is on terms that are comparable to the terms available to or from, as the case may be, an unrelated third party or to or from employees generally. Under the policy, we will collect information that we deem reasonably necessary from each director, executive officer and, to the extent feasible, significant shareholder to enable us to identify any existing or potential related-person transactions and to effectuate the terms of the policy. In addition, under our Code of Conduct, our employees and directors will have an affirmative responsibility to disclose any transaction or relationship that reasonably could be expected to give rise to a conflict of interest. In considering related person transactions, our audit committee, or other independent body of our board of directors, will take into account the relevant available facts and circumstances including, but not limited to:

- the risks, costs and benefits to us;
- the impact on a director's independence in the event that the related person is a director, immediate family member of a director or an entity with which a director is affiliated;

- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties or to or from employees generally.

The policy requires that, in determining whether to approve, ratify or reject a related person transaction, our audit committee, or other independent body of our board of directors, must consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, our best interests and those of our shareholders, as our audit committee, or other independent body of our board of directors, determines in the good faith exercise of its discretion.

PRINCIPAL SHAREHOLDERS

The following table sets forth certain information regarding the beneficial ownership of our common stock as of December 31, 2017 by:

- each of our named executive officers;
- each of our directors;
- all of our current directors and executive officers as a group; and
- each stockholder known by us to own beneficially more than five percent of our common stock.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and includes voting or investment power with respect to the securities. Shares of common stock that may be acquired by an individual or group within 60 days of December 31, 2017, pursuant to the exercise of options or warrants, are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table. Percentage of ownership is based on 41,804 shares of common stock outstanding on December 31, 2017, and shares of common stock outstanding after the completion of this offering.

Except as indicated in footnotes to this table, we believe that the stockholders named in this table have sole voting and investment power with respect to all shares of common stock shown to be beneficially owned by them, based on information provided to us by such stockholders. Unless otherwise indicated, the address for each director and executive officer listed is: c/o BioXcel Therapeutics, Inc., 780 East Main Street, Branford, CT 06405.

Name of Beneficial Owner	Number of Shares Beneficially Owned Prior to Offering	Percentage of Common Stock Beneficially Owned	
		Before Offering	After Offering[1]
Directors and Executive Officers			
Vimal Mehta, Ph.D.	—	*	*
Peter Mueller, Ph.D.[2]	699	1.6%	
Frank D. Yocca, Ph.D.	—	*	*
Krishnan Nandabalan, Ph.D.	—	*	*
Sandeep Laumas, M.D.	—	*	*
All current executive officers and directors as a group (7 persons)	699	*	*
5% or Greater Stockholders	—	*	*
BioXcel Corporation 780 East Main Street, Branford, CT 06405	40,000	95.7%	%

* Represents beneficial ownership of less than one percent (1%).

1 Assuming the underwriters do not exercise their option to acquire additional securities, as described in the section "Underwriting" below. If they do exercise in full their option to acquire additional securities, we estimate BioXcel will own approximately % of our outstanding shares of common stock immediately after this offering.

2 Includes options to purchase 524 shares of common stock and excludes 614 shares of common stock purchased by Dr. Mueller in January 2018.

DESCRIPTION OF CAPITAL STOCK

General

Upon completion of this offering, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of preferred stock, par value $0.001 per share. As of December 31, 2017, there were shares of common stock, and no shares of preferred stock issued and outstanding.

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon the completion of this offering is only a summary. You should also refer to our amended and restated certificate of incorporation, a copy of which is incorporated by reference as an exhibit to the registration statement of which this prospectus is a part, and our amended and restated bylaws, a copy of which is incorporated by reference as an exhibit to the registration statement of which this prospectus is a part.

Common Stock

We are authorized to issue up to a total of shares of common stock, par value $0.001 per share. Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of our stockholders. Holders of our common stock have no cumulative voting rights.

Further, holders of our common stock have no preemptive or conversion rights or other subscription rights. Upon our liquidation, dissolution or winding- up, holders of our common stock are entitled to share in all assets remaining after payment of all liabilities and the liquidation preferences of any of our outstanding shares of preferred stock. Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of our assets which are legally available. Such dividends, if any, are payable in cash, in property or in shares of capital stock. Each outstanding share of our common stock is, and all shares of common stock to be issued in this offering when they are paid for will be, fully paid and non-assessable.

The holders of a majority of the shares of our capital stock, represented in person or by proxy, are necessary to constitute a quorum for the transaction of business at any meeting. If a quorum is present, an action by stockholders entitled to vote on a matter is approved if the number of votes cast in favor of the action exceeds the number of votes cast in opposition to the action, with the exception of the election of directors, which requires a plurality of the votes cast.

Preferred Stock

Our board of directors has the authority, without further action by the stockholders, to issue up to shares of preferred stock in one or more series and to fix the designations, powers, preferences, privileges, and relative participating, optional, or special rights as well as the qualifications, limitations, or restrictions of the preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, and liquidation preferences, any or all of which may be greater than the rights of the common stock. Our board of directors, without stockholder approval, can issue convertible preferred stock with voting, conversion, or other rights that could adversely affect the voting power and other rights of the holders of common stock. Preferred stock could be issued quickly with terms calculated to delay or prevent a change of control or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock, and may adversely affect the voting and other rights of the holders of common stock. At present, we have no plans to issue any shares of preferred stock following this offering.

Options

Our 2017 Equity Incentive Plan, or the Plan, provides for us to sell or issue shares of common stock or restricted shares of common stock, or to grant incentive stock options or nonqualified stock options, stock appreciation rights and restricted stock unit awards for the purchase of shares of common stock, to employees, members of the board of directors and consultants. As of December 31, 2017, options to purchase 9,747 common shares were outstanding. For additional information regarding the terms of the Plan, see "Executive and Director Compensation—2017 Equity Incentive Plan."

Piggyback Registration Rights

We have granted one of our stockholders certain piggyback registration rights with respect to their shares of common stock. If we propose to register any of our securities under the Securities Act either for our own account or for the account of other stockholders (other than in connection with this offering), such holder will be entitled to notice of the registration and will be entitled to include their shares of common stock in the registration statement, provided, however, that the Company shall not be required to register the resale of any shares of common stock that are eligible for resale pursuant to Rule 144 under the Securities Act without any requirement for the Company to maintain current public information and without any limitation on volume or manner of sale. 875 shares of our common stock are entitled to these piggyback registration rights.

Anti-Takeover Provisions of Delaware Law, our Amended and Restated Certificate of Incorporation and our Amended and Restated Bylaws

Delaware Law

We are governed by the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly traded Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A business combination includes mergers, asset sales or other transactions resulting in a financial benefit to the stockholder. An interested stockholder is a person who, together with affiliates and associates, owns (or within three years, did own) 15% or more of the corporation's voting stock, subject to certain exceptions. The statute could have the effect of delaying, deferring or preventing a change in control of our company.

Board of Directors Vacancies

Our amended and restated certificate of incorporation and amended and restated bylaws authorize only our board of directors to fill vacant directorships. In addition, the number of directors constituting our board of directors may be set only by resolution of the majority of the incumbent directors.

Stockholder Action; Special Meeting of Stockholders

Our amended and restated certificate of incorporation and amended and restated bylaws provide that our stockholders may not take action by written consent. Our amended and restated certificate of incorporation and amended and restated bylaws further provide that special meetings of our stockholders may be called by a majority of the board of directors, the Chief Executive Officer, or the Chairman of the board of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our amended and restated bylaws provide that stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as directors at our annual meeting of stockholders, must provide timely notice of their intent in writing. To be timely, a stockholder's notice must be delivered to the secretary at our principal executive offices not later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to

the first anniversary of the preceding year's annual meeting; provided, however, that in the event the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date, or if no annual meeting was held in the preceding year, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which a public announcement of the date of such meeting is first made by us. These provisions may preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders.

Authorized but Unissued Shares

Our authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval and may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise. If we issue such shares without stockholder approval and in violation of limitations imposed by the Nasdaq Capital Market or any stock exchange on which our stock may then be trading, our stock could be delisted.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company.

Stock Market Listing

We have applied to list our shares of common stock for trading on The Nasdaq Capital Market under the symbol "BTAI." No assurance can be given that such listing will be approved.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and a liquid trading market for our common stock may not develop or be sustained after this offering. Future sales of substantial amounts of our common stock in the public market, or the anticipation of these sales, could materially and adversely affect market prices prevailing from time to time, and could impair our ability to raise capital through sales of equity or equity-related securities.

Only a limited number of shares of our common stock will be available for sale in the public market for a period of several months after completion of this offering due to contractual and legal restrictions on resale described below. Nevertheless, sales of a substantial number of shares of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could materially and adversely affect the prevailing market price of our common stock. Although we have applied to list our common stock on The Nasdaq Capital Market, we cannot assure you that there will be an active market for our common stock.

Of the shares to be outstanding immediately after the completion of this offering, we expect that the shares to be sold in this offering will be freely tradable without restriction under the Securities Act unless purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act. The remaining shares of our common stock outstanding after this offering will be subject to a 180-day lock-up period under the lock-up agreements as described below. These restricted securities may be sold in the public market only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act.

Rule 144

Affiliate Resales of Restricted Securities

Affiliates of ours must generally comply with Rule 144 if they wish to sell any shares of our common stock in the public market, whether or not those shares are "restricted securities." "Restricted securities" are any securities acquired from us or one of our affiliates in a transaction not involving a public offering. All shares of our common stock issued prior to the closing of the offering made hereby, are considered to be restricted securities. The shares of our common stock sold in this offering are not considered to be restricted securities.

Non-Affiliate Resales of Restricted Securities

Any person or entity who is not an affiliate of ours and who has not been an affiliate of ours at any time during the three months preceding a sale is only required to comply with Rule 144 in connection with sales of restricted shares of our common stock. Subject to the lock-up agreements described below, those persons may sell shares of our common stock that they have beneficially owned for at least one year without any restrictions under Rule 144 immediately following the effective date of the registration statement of which this prospectus is a part.

Further, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time such person sells shares of our common stock, and has not been an affiliate of ours at any time during the three months preceding such sale, and who has beneficially owned such shares of our common stock, as applicable, for at least six months but less than a year, is entitled to sell such shares so long as there is adequate current public information, as defined in Rule 144, available about us.

Resales of restricted shares of our common stock by non-affiliates are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144, described above.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of ours during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation, or notice provisions of Rule 144.

Rule 701 also permits affiliates of ours to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required to wait until 90 days after the date of this prospectus before selling such shares pursuant to Rule 701 and until expiration of the 180-day lock-up period described below.

Equity Incentive Awards

We intend to file a registration statement on Form S-8 under the Securities Act after the closing of this offering to register the shares of common stock that are issuable pursuant to our Plan. The registration statement is expected to be filed and become effective as soon as practicable after the completion of this offering. Accordingly, shares registered under the registration statement will be available for sale in the open market following its effective date, subject to Rule 144 volume limitations and the lock-up arrangement described above, if applicable.

Lock-Up Agreements

We, each of our directors and executive officers, and the holders of all of our outstanding shares of common stock prior to this offering, have agreed that, without the prior written consent of Barclays Capital Inc., UBS Securities LLC and BMO Capital Markets Corp. on behalf of the underwriters, we and they will not, subject to limited exceptions, during the period ending 180 days after the date of this prospectus, subject to extension in specified circumstances:

- offer, pledge, sell or contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock;

- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock, whether such transaction is to be settled by delivery of shares of our common stock or such other securities, in cash or otherwise;

- make any demand for or exercise any right with respect to the registration of any shares of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock; or

- publicly announce an intention to do any of the foregoing.

The lock-up restrictions, specified exceptions and the circumstances under which the lock-up period may be extended are described in more detail under the caption "Underwriting."

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR COMMON STOCK

The following is a summary of the material U.S. federal income tax consequences to non-U.S. holders (as defined below) of the ownership and disposition of our common stock but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Internal Revenue Code, Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed, possibly retroactively, so as to result in U.S. federal income tax consequences different from those set forth below. No ruling on the U.S. federal, state, or local tax considerations relevant to our operations or to the purchase, ownership or disposition of our shares, has been requested from the IRS or other tax authority. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to any of the tax consequences described below.

This summary also does not address the tax considerations arising under the laws of any non-U.S., state or local jurisdiction, or under U.S. federal gift and estate tax laws, except to the limited extent set forth below. In addition, this discussion does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies or other financial institutions, regulated investment companies or real estate investment trusts;
- persons subject to the alternative minimum tax or Medicare contribution tax on net investment income;
- tax-exempt organizations or governmental organizations;
- controlled foreign corporations, passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax;
- brokers or dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock (except to the extent specifically set forth below);
- U.S. expatriates and certain former citizens or long-term residents of the United States;
- partnerships or entities classified as partnerships for U.S. federal income tax purposes or other pass-through entities (and investors therein);
- persons who hold our common stock as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction or integrated investment;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Internal Revenue Code; or
- persons deemed to sell our common stock under the constructive sale provisions of the Internal Revenue Code.

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase,

ownership and disposition of our common stock arising under the U.S. federal estate or gift tax rules or under the laws of any state, local, non-U.S., or other taxing jurisdiction or under any applicable tax treaty.

Non-U.S. Holder Defined

For purposes of this discussion, you are a non-U.S. holder (other than a partnership) if you are any holder other than:

- an individual citizen or resident of the United States (for U.S. federal income tax purposes);
- a corporation or other entity taxable as a corporation created or organized in the United States or under the laws of the United States, any state thereof, or the District of Columbia, or other entity treated as such for U.S. federal income tax purposes;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust (x) whose administration is subject to the primary supervision of a U.S. court and which has one or more "U.S. persons" (within the meaning of Section 7701(a)(30) of the Internal Revenue Code) who have the authority to control all substantial decisions of the trust or (y) which has made a valid election to be treated as a U.S. person.

In addition, if a partnership or entity classified as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold our common stock, and partners in such partnerships, should consult their tax advisors.

Distributions

As described in "Dividend Policy," we have never declared or paid cash dividends on our common stock and do not anticipate paying any dividends on our common stock in the foreseeable future. However, if we do make distributions on our common stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock as described below under "—Gain on Disposition of Common Stock."

Subject to the discussion below on effectively connected income, backup withholding and foreign accounts, any dividend paid to you generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us with an IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate version of IRS Form W-8 certifying qualification for the reduced rate. A non-U.S. holder of shares of our common stock eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. If the non-U.S. holder holds the stock through a financial institution or other agent acting on the non-U.S. holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Dividends received by you that are effectively connected with your conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, attributable to a permanent establishment maintained by you in the United States) are generally exempt from such withholding tax. In order to obtain this exemption, you must provide us with an IRS Form W-8ECI or other applicable IRS

Form W-8 properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits. In addition, if you are a corporate non-U.S. holder, dividends you receive that are effectively connected with your conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty. You should consult your tax advisor regarding any applicable tax treaties that may provide for different rules.

Gain on Disposition of Common Stock

Subject to the discussion below regarding backup withholding and foreign accounts, you generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with your conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, the gain is attributable to a permanent establishment maintained by you in the United States);
- you are a non-resident alien individual who is present in the United States for a period or periods aggregating 183 days or more during the taxable year in which the sale or disposition occurs and certain other conditions are met; or
- our common stock constitutes a United States real property interest by reason of our status as a "United States real property holding corporation," or USRPHC, for U.S. federal income tax purposes at any time within the shorter of (i) the five-year period preceding your disposition of our common stock, or (ii) your holding period for our common stock.

We believe that we are not currently and will not become a USRPHC for U.S. federal income tax purposes, and the remainder of this discussion so assumes. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, such common stock will be treated as U.S. real property interests only if you actually or constructively hold more than five percent of such regularly traded common stock at any time during the shorter of the five-year period preceding your disposition of, or your holding period for, our common stock.

If you are a non-U.S. holder described in the first bullet above, you will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates, and a corporate non-U.S. holder described in the first bullet above also may be subject to the branch profits tax at a 30% rate, or such lower rate as may be specified by an applicable income tax treaty. If you are an individual non-U.S. holder described in the second bullet above, you will be required to pay a flat 30% tax (or such lower rate specified by an applicable income tax treaty) on the gain derived from the sale, which gain may be offset by U.S. source capital losses for the year (provided you have timely filed U.S. federal income tax returns with respect to such losses). You should consult any applicable income tax or other treaties that may provide for different rules.

Federal Estate Tax

Our common stock beneficially owned by an individual who is not a citizen or resident of the United States (as defined for U.S. federal estate tax purposes) at the time of their death will generally be includable in the decedent's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax treaty provides otherwise. The test for whether an individual is a resident of the United States for U.S. federal estate tax purposes differs from the test used for U.S. federal income tax

purposes. Some individuals, therefore, may be non-U.S. holders for U.S. federal income tax purposes, but not for U.S. federal estate tax purposes, and vice versa.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address and the amount of tax withheld, if any. A similar report will be sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of dividends or of proceeds on the disposition of stock made to you may be subject to information reporting and backup withholding at a current rate of 28% unless you establish an exemption, for example, by properly certifying your non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E or another appropriate version of IRS Form W-8.

Backup withholding is not an additional tax; rather, the U.S. federal income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance

The Foreign Account Tax Compliance Act, or FATCA, imposes withholding tax at a rate of 30% on dividends on and gross proceeds from the sale or other disposition of our common stock paid to "foreign financial institutions" (as specially defined under these rules), unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding the U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise establishes an exemption. FATCA also generally imposes a U.S. federal withholding tax of 30% on dividends on and gross proceeds from the sale or other disposition of our common stock paid to a "non-financial foreign entity" (as specially defined for purposes of these rules) unless such entity provides the withholding agent with a certification identifying certain substantial direct and indirect U.S. owners of the entity, certifies that there are none or otherwise establishes an exemption. The withholding provisions under FATCA generally apply to dividends on our common stock, and under current transition rules, are expected to apply with respect to the gross proceeds from the sale or other disposition of our common stock on or after January 1, 2019. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their tax advisors regarding the possible implications of this legislation on their investment in our common stock.

Each prospective investor should consult its tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.

UNDERWRITING

Barclays Capital Inc., UBS Securities LLC and BMO Capital Markets Corp. are acting as the representatives of the underwriters and the book-running managers of this offering. Under the terms of an underwriting agreement, which is filed as an exhibit to the registration statement, each of the underwriters named below has severally agreed to purchase from us the respective number of shares of common stock shown opposite its name below:

Underwriters	Number of Shares
Barclays Capital Inc.	
UBS Securities LLC	
BMO Capital Markets Corp.	
Canaccord Genuity Inc.	
Total	

The underwriting agreement provides that the underwriters' obligation to purchase shares of common stock depends on the satisfaction of the conditions contained in the underwriting agreement including:

- the representations and warranties made by us to the underwriters are true;
- there is no material change in our business or the financial markets; and
- we deliver customary closing documents to the underwriters.

Commissions and Expenses

The following table summarizes the underwriting discounts and commissions we will pay to the underwriters. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares. The underwriting fee is the difference between the initial price to the public and the amount the underwriters pay to us for the shares.

	No Exercise	Full Exercise
Per Share	$	$
Total	$	$

The representatives have advised us that the underwriters propose to offer the shares of common stock directly to the public at the public offering price on the cover of this prospectus and to selected dealers, which may include the underwriters, at such offering price less a selling concession not in excess of $ per share. After the offering, the representatives may change the offering price and other selling terms.

The expenses of this offering that are payable by us are estimated to be approximately $ (excluding estimated underwriting discounts and commissions). We have also agreed to reimburse the underwriters for certain of their expenses, in an amount up to $, incurred in connection with review by the Financial Industry Regulatory Authority, Inc. of the terms of this offering, as set forth in the underwriting agreement.

Option to Purchase Additional Shares

We have granted the underwriters an option exercisable for 30 days after the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of shares from us at the public offering price less underwriting discounts and commissions. To the extent that this option is exercised, each underwriter will be obligated, subject to certain conditions, to

purchase its pro rata portion of these additional shares based on the underwriter's percentage underwriting commitment in this offering as indicated in the table at the beginning of this Underwriting Section.

Lock-Up Agreements

We, all of our directors, executive officers, and holders of all of our outstanding stock have agreed that, for a period of 180 days after the date of this prospectus subject to certain limited exceptions, we and they will not directly or indirectly, without the prior written consent of each of Barclays Capital Inc., UBS Securities LLC and BMO Capital Markets Corp., (i) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of common stock (including, without limitation, shares of common stock that may be deemed to be beneficially owned by us or them in accordance with the rules and regulations of the SEC and shares of common stock that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for common stock, (ii) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of shares of common stock, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of common stock or other securities, in cash or otherwise, (iii) make any demand for or exercise any right or file or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible into or exercisable or exchangeable for common stock or any of our other securities, or (iv) publicly disclose the intention to do any of the foregoing.

Barclays Capital Inc., UBS Securities LLC and BMO Capital Markets Corp., in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release common stock and other securities from lock-up agreements, Barclays Capital Inc., UBS Securities LLC and BMO Capital Markets Corp. will consider, among other factors, the holder's reasons for requesting the release, the number of shares of common stock and other securities for which the release is being requested and market conditions at the time.

Offering Price Determination

Prior to this offering, there has been no public market for our common stock. The initial public offering price was negotiated between the representatives and us. In determining the initial public offering price of our common stock, the representatives considered:

- the history and prospects for the industry in which we compete;
- our financial information;
- the ability of our management and our business potential and earning prospects;
- the prevailing securities markets at the time of this offering; and
- the recent market prices of, and the demand for, publicly traded shares of generally comparable companies.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make for these liabilities.

Stabilization, Short Positions and Penalty Bids

The representatives may engage in stabilizing transactions, short sales and purchases to cover positions created by short sales, and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of the common stock, in accordance with Regulation M under the Exchange Act:

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.

- A short position involves a sale by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase in the offering, which creates the syndicate short position. This short position may be either a covered short position or a naked short position. In a covered short position, the number of shares involved in the sales made by the underwriters in excess of the number of shares they are obligated to purchase is not greater than the number of shares that they may purchase by exercising their option to purchase additional shares. In a naked short position, the number of shares involved is greater than the number of shares in their option to purchase additional shares. The underwriters may close out any short position by either exercising their option to purchase additional shares and/or purchasing shares in the open market. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through their option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions.

- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of the common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The Nasdaq Capital Market or otherwise and, if commenced, may be discontinued at any time.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Electronic Distribution

A prospectus in electronic format may be made available on the Internet sites or through other online services maintained by one or more of the underwriters and/or selling group members participating in this offering, or by their affiliates. In those cases, prospective investors may view offering terms online and, depending upon the particular underwriter or selling group member, prospective investors may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares for sale to online brokerage account holders. Any such allocation for online distributions will be made by the representatives on the same basis as other allocations.

Other than the prospectus in electronic format, the information on any underwriter's or selling group member's web site and any information contained in any other web site maintained by an underwriter or selling group member is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter or selling group member in its capacity as underwriter or selling group member and should not be relied upon by investors.

Listing on The Nasdaq Capital Market

We have applied to list our common stock on The Nasdaq Capital Market under the symbol "BTAI".

Discretionary Sales

The underwriters have informed us that they do not expect to sell more than 5% of the common stock in the aggregate to accounts over which they exercise discretionary authority.

Stamp Taxes

If you purchase shares of common stock offered in this prospectus, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus.

Other Relationships

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for the issuer and its affiliates, for which they received or may in the future receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and certain of their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer or its affiliates. If the underwriters or their affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriters and their affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the shares of common stock offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the shares of common stock offered hereby. The underwriters and certain of their affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

This prospectus does not constitute an offer to sell to, or a solicitation of an offer to buy from, anyone in any country or jurisdiction (i) in which such an offer or solicitation is not authorized, (ii) in which any person making such offer or solicitation is not qualified to do so or (iii) in which any such

offer or solicitation would otherwise be unlawful. No action has been taken that would, or is intended to, permit a public offer of the shares of common stock or possession or distribution of this prospectus or any other offering or publicity material relating to the shares of common stock in any country or jurisdiction (other than the United States) where any such action for that purpose is required. Accordingly, each underwriter has undertaken that it will not, directly or indirectly, offer or sell any shares of common stock or have in its possession, distribute or publish any prospectus, form of application, advertisement or other document or information in any country or jurisdiction except under circumstances that will, to the best of its knowledge and belief, result in compliance with any applicable laws and regulations and all offers and sales of shares of common stock by it will be made on the same terms.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any common stock which are the subject of the offering contemplated herein may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- to legal entities which are qualified investors as defined under the Prospectus Directive;
- by the underwriters to fewer than 100, or, if the Relevant Member State has implemented the relevant provisions of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of common stock shall result in a requirement for us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State who receives any communication in respect of, or who acquires any common stock under, the offers contemplated here in this prospectus will be deemed to have represented, warranted and agreed to and with each underwriter and us that:

- it is a qualified investor as defined under the Prospectus Directive; and
- in the case of any common stock acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, (i) the common stock acquired by it in the offering have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors, as that term is defined in the Prospectus Directive, or in the circumstances in which the prior consent of the representatives of the underwriters has been given to the offer or resale or (ii) where common stock have been acquired by it on behalf of persons in any Relevant Member State other than qualified investors, the offer of such common stock to it is not treated under the Prospectus Directive as having been made to such persons.

For the purposes of this representation and the provision above, the expression an "offer of common stock to the public" in relation to any common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any common stock to be offered so as to enable an investor to decide to purchase or subscribe for the common stock, as the same may be varied in that Relevant Member State by any measure

implementing the Prospectus Directive in that Relevant Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in each Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

This prospectus has only been communicated or caused to have been communicated and will only be communicated or caused to be communicated as an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act of 2000 (the "FSMA")) as received in connection with the issue or sale of the common stock in circumstances in which Section 21(1) of the FSMA does not apply to us. All applicable provisions of the FSMA will be complied with in respect to anything done in relation to the common stock in, from or otherwise involving the United Kingdom.

Notice to Residents of Canada

The securities may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

LEGAL MATTERS

The validity of the issuance of the common stock offered by us in this offering will be passed upon for us by Sheppard, Mullin, Richter & Hampton LLP, New York, New York. Certain legal matters in connection with this offering will be passed upon for the underwriters by Latham & Watkins LLP.

EXPERTS

The financial statements of BioXcel Therapeutics, Inc. as of December 31, 2017 and 2016 and for each of the years then ended included in this Registration Statement, of which this Prospectus forms a part, have been so included in reliance on the report of BDO USA, LLP, an independent registered public accounting firm (the report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern) appearing elsewhere herein, given on the authority of said firm as experts in auditing and accounting. The balance sheet of BioXcel Therapeutics, Inc. as of December 31, 2016, and the related statements of operations, changes in net Parent investment, and cash flows for the period January 1, 2017 through June 30, 2017 are the carved-out operations of certain assets and liabilities of BioXcel Corporation.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act with respect to the common stock offered by this prospectus. This prospectus, which is part of the registration statement, omits certain information, exhibits, schedules and undertakings set forth in the registration statement. For further information pertaining to us and our common stock, reference is made to the registration statement and the exhibits and schedules to the registration statement. Statements contained in this prospectus as to the contents or provisions of any documents referred to in this prospectus are not necessarily complete, and in each instance where a copy of the document has been filed as an exhibit to the registration statement, reference is made to the exhibit for a more complete description of the matters involved.

You may read and copy all or any portion of the registration statement without charge at the public reference room of the Securities and Exchange Commission at 100 F Street, N.E., Washington, D.C. 20549. Copies of the registration statement may be obtained from the Securities and Exchange Commission at prescribed rates from the public reference room of the Securities and Exchange Commission at such address. You may obtain information regarding the operation of the public reference room by calling 1-800-SEC-0330. In addition, registration statements and certain other filings made with the Securities and Exchange Commission electronically are publicly available through the Securities and Exchange Commission's website at *http://www.sec.gov*. The registration statement, including all exhibits and amendments to the registration statement, has been filed electronically with the Securities and Exchange Commission.

Upon completion of this offering, we will become subject to the information and periodic reporting requirements of the Securities Exchange Act of 1934, as amended, and, accordingly, will be required to file annual reports containing financial statements audited by an independent public accounting firm, quarterly reports containing unaudited financial data, current reports, proxy statements and other information with the Securities and Exchange Commission. You will be able to inspect and copy such periodic reports, proxy statements and other information at the Securities and Exchange Commission's public reference room, and the website of the Securities and Exchange Commission referred to above.

FINANCIAL STATEMENTS

BioXcel Therapeutics, Inc.

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Shareholder
of BioXcel Corporation

Opinion on the Financial Statements

We have audited the accompanying balance sheets of BioXcel Therapeutics, Inc. (the "Company") as of December 31, 2017 and 2016, and the related statements of operations, changes in stockholder's deficit/net Parent investment, and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements"). The balance sheet as of December 31, 2016, and the related statements of operations, net Parent investment, and cash flows for the period January 1, 2017 through June 30, 2017 are the carved-out operations of certain assets and liabilities of BioXcel Corporation. In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has incurred significant operating losses and negative cash flows from operations. The Company also had a working capital deficiency of $1.45 million and an accumulated deficit of $4.45 million at December 31, 2017. The Company is dependent on obtaining necessary funding in order to continue its operations. These conditions raise substantial doubt about its ability to continue as a going concern. Management's plans regarding those matters also are described in Note 2.

/s/ BDO USA LLP

We have served as the Company's auditor since 2017
Woodbridge, New Jersey
February 12, 2018

BIOXCEL THERAPEUTICS, INC.

BALANCE SHEETS

(amount in thousands, except shares and per share data)

	December 31, 2017 (A)	December 31, 2016 (A)
ASSETS		
Current assets		
Cash	$ 887	$ —
Prepaid expenses and other assets	3	2
Total current assets	890	2
Deferred offering expenses	461	—
Equipment, net	4	5
Total assets	**$ 1,355**	**$ 7**
LIABILITIES AND STOCKHOLDERS' DEFICIT / NET PARENT INVESTMENT		
Current liabilities		
Accounts payable	444	279
Accrued expenses	1,015	52
Payable to Parent for services	67	—
Notes payable to Parent	371	—
Due to Parent	440	—
Total current liabilities	2,337	331
Total liabilities	2,337	331
Commitments and contingencies	—	—
Stockholders' deficit / Net Parent investment		
Common stock, $0.001 par value, 100,000 shares authorized; 41,804 shares issued and outstanding as of December 31, 2017 (see Note 8)	—	—
Additional paid-in-capital	3,468	—
Net Parent investment		
Net liabilities assumed from Parent	—	(324)
Total net Parent investment	—	(324)
Accumulated deficit	(4,450)	—
Total stockholders deficit and net Parent investment	(982)	(324)
Total liabilities and stockholders' deficit / net Parent investment	**$ 1,355**	**$ 7**

(A) See Note 2 to the financial statements

The accompanying notes are an integral part of these financial statements

BIOXCEL THERAPEUTICS, INC.

STATEMENTS OF OPERATIONS

(amount in thousands, except share and per share data)

	Years Ended	
	2017 (A)	2016 (A)
Revenues	$ —	$ —
Operating costs and expenses		
Research and development	2,690	1,399
General and administrative	1,847	721
Total operating expenses	4,537	2,120
Loss from operations	(4,537)	—
Other expense		
Interest expense	(2)	—
Net loss	$ (4,539)	$ (2,120)
Net loss per share attributable to common stockholder/Parent, basic and diluted	$ (111.07)	$ (53.00)
Weighted average common shares outstanding, basic and diluted	40,865	40,000

(A) See Note 2 to the financial statements

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

BIOXCEL THERAPEUTICS, INC.

STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT/NET PARENT INVESTMENT

(amount in thousands, except shares and per share data)

	Common Stock		Net Parent Investment	Additional Paid in Capital	Accumulated Deficit	Total
	Shares	Amount				
Balance as of January 1, 2016	—	$ —	$ (173)	$ —	$ —	$ (173)
Investment from Parent			1,969			1,969
Net loss			(2,120)			(2,120)
Balance as of December 31, 2016	**—**	**—**	**(324)**	**—**	**—**	**(324)**
Investment from Parent			539			539
Net loss[(A)]			(529)			(529)
Balance as of March 29, 2017 (date of incorporation)	—	—	(314)	—	—	(314)
Issuance of common shares (see Note 8)	41,804			2,061		2,061
Liabilities assumed from Parent			(126)			(126)
Transfer to accumulated deficit			440		(440)	—
Stock-based compensation				1,407		1,407
Net loss[(A)]					(4,010)	(4,010)
Balance as of December 31, 2017	**41,804**	**$ —**	**$ —**	**$ 3,468**	**$ (4,450)**	**$ (982)**

(A) Combined net loss for the period ended December 31, 2017 is $ 4,539

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

BIOXCEL THERAPEUTICS, INC.

STATEMENTS OF CASH FLOWS

(amount in thousands, except shares and per share data)

	Years Ended December 31, 2017 (A)	2016 (A)
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	**$ (4,539)**	**$ (2,120)**
Reconciliation of net loss to net cash (used in) provided by operating activities:		
Depreciation and amortization	1	—
Stock-based compensation expense	1,606	671
Changes in operating assets and liabilities:		
Prepaid expenses	(1)	(1)
Accounts payable and accrued expenses	737	156
Net cash used in operating activities	(2,196)	(1,294)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of fixed assets	—	(4)
Net cash used in investing activities	—	(4)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Deferred offering expense	(70)	—
Net Parent investment	214	1,298
Payable to Parent for services	67	—
Due to Parent	440	—
Proceeds from note payable—Parent	371	—
Proceeds from issuance of common stock	2,061	—
Net cash provided by financing activities	3,083	1,298
Net increase in cash	887	—
Cash, beginning of the year	—	—
Cash, end of the year	$ 887	$ —
Non-cash financing activities:		
Deferred offering expenses, unpaid as of 12/31/17	$ 391	—
Supplemental disclosure		
Reclassification of net parental investment in the Company to accumulated deficit	$ 440	$ —

(A) See Note 2 to the financial statements

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

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS

(amounts in thousands, except share and per share data)

Note 1. Organization and Principal Activities

BioXcel Therapeutics, Inc. (the "Company" or "BTI") is a clinical stage biopharmaceutical company focused on novel artificial intelligence-based drug development to identify the next wave of medicines across neuroscience and immuno-oncology. The Company's drug re-innovation approach leverages existing approved drugs and/or clinically validated product candidates together with big data and proprietary machine learning algorithms to identify new therapeutic indices. The Company is a wholly-owned subsidiary of BioXcel Corporation ("BioXcel" or "Parent") and was incorporated under the laws of the State of Delaware on March 29, 2017—see note 2 basis of presentation for further discussion. The Company's principal office is in Branford, Connecticut.

The Company's primary activities have been the development of a clinical plan and pre-clinical research and development of two advanced programs: BXCL501, a sublingual thin film formulation of dexmedetomidine designed for acute treatment of agitation resulting from neurological and psychiatric disorders, and BXCL701, an immuno-oncology agent designed for treatment of a rare form of prostate cancer and for treatment of pancreatic cancer. These two programs and two emerging programs BXCL502 and BXCL702 (together, "the BTI Business") programs have been contributed to the Company from the parent company BioXcel.

Note 2. Basis of Presentation and Liquidity

Basis of Presentation

The financial statements of the Company are derived by carving out the historical results of operations and historical cost basis of the, assets and liabilities associated with product candidates BXCL501, BXCL701, BXCL502 and BXCL702 that have been contributed to the Company by BioXcel (the "BTI Business") from the BioXcel's financial statements.

These results reflect amounts specifically attributable to the BTI Business, which include expenses, assets and liabilities of BioXcel relating to the candidates that were contributed to the Company by BioXcel under a contribution agreement, effective June 30, 2017, as amended and restated on November 7, 2017, or the Contribution Agreement, for the period from January 1, 2015 until the formation of the Company on March 29, 2017 (date of incorporation) and further until June 30, 2017. The Company has entered into a separation and shared services agreement with BioXcel that took effect on June 30, 2017, as amended and restated on November 7, 2017, or the Services Agreement, pursuant to which BioXcel provides the Company with certain general and administrative and development support services effective June 30, 2017. However, consistent with accounting regulations, it has been assumed that the Company was a separate business since January 1, 2015 and accordingly the assets, liabilities and expenses relating to the BTI Business have been separated from the Company in the financial statements for periods prior to and post incorporation through June 30, 2017. The financial statements as of December 31, 2016 and for the period January 1, 2017 through June 30, 2017 include reasonable allocations for assets and liabilities and expenses attributable to the BTI Business.

Accordingly, the historical financial information for the fiscal year ended December 31, 2016 has been "carved-out" of the financial statements of BioXcel, and such financial information is limited to business activities, assets and liabilities of the BTI Business. For the year ended December 31, 2017 results include carve-out amounts from BioXcel for the period January 1, 2017 through June 30, 2017 and as a standalone entity for the period July 1, 2017 through December 31, 2017.

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 2. Basis of Presentation and Liquidity (Continued)

All assets and liabilities contributed by BioXcel to the Company have been recorded at historical book value. The historical financial statements derived during the years ended December 31, 2016 and for the period January 1, 2017 through June 30, 2017 have been presented on a basis that includes the results attributable to the BTI Business as if the Company owned the business for these periods.

The carve-out financial information includes both direct and indirect expenses. The historical direct expenses consist primarily of salaries of research and development employees directly involved in the BTI Business activities, stock based compensation for such employees, preclinical and clinical trial related expenses, research expenses and fees paid to scientific advisors. The indirect expenses consist of allocated employee costs, stock-based compensation, legal, professional and consulting fees attributable to the BTI Business and general and administrative overhead charged back to the BTI Business in proportion to the time spent by employees directly involved in the BTI Business, compared to the total time spent by all the employees.

Prepaid expenses, other current assets, fixed assets, accounts payable, accrued wages and salaries and accrued liabilities are presented using the allocation method whereby assets and liabilities directly related to the BTI Business were allocated at 100% to the Company. For compensation related matters, the allocation was based on time spent by employees directly involved in the BTI Business compared to the total time spent by all employees. All other allocations were based on management estimates.

The Company believes that the assumptions underlying the allocations of direct and indirect expenses in the carve-out financial information are reasonable, however, the financial position, results of operations and cash flows may have been materially different if the Company had operated as a stand-alone entity as of and for the years ended December 31, 2017 and 2016, respectively.

The Company has calculated its income tax amounts using a separate return methodology and it has presented these amounts as if it were a separate taxpayer from BioXcel for the period since the date of incorporation (March 29, 2017). BioXcel is a standalone S corporation and its tax obligations were passed through to its shareholders and were not a liability of the S corporation. As a result, BioXcel does not require a tax provision for federal or state purposes and on the same lines no taxes have been allocated to the financials of the Company which is derived from a carve-out process from the financials of BioXcel. Pursuant to our incorporation as a C corporation, BioXcel became the Company's sole owner and contributed the BTI Business in a tax free transaction. From the date of incorporation, the Company has been a standalone C corporation subject to corporate income tax and the deferred tax assets have been calculated accordingly.

Liquidity and Going Concern

The Company incurred net losses of $(4,539) and $(2,120) during the years ended December 31, 2017 and 2016, respectively. The Company has a working capital deficit of $(1,447) as of December 31, 2017 and $(329) as of December 31, 2016. The Company had a net Parent Investment of $324 as of December 31, 2016, There was no net Parent investment as of December 31, 2017 as all amounts were transferred to accumulated deficit. The Company has not yet developed its own funding sources and is largely dependent on BioXcel for funding. These matters raise substantial doubt about the Company's ability to continue as a going concern. Under the Agreement, BioXcel has agreed to provide a line of

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 2. Basis of Presentation and Liquidity (Continued)

credit to the Company in the amount of up to $1,000 (which can be increased based on a mutual agreement) for working capital purposes.

The Company is obligated to repay BioXcel the amounts drawn down under the Grid Note upon the closing of an initial public offering or 18 months from the date of the note whichever is earlier. As on December 31, 2017 the Company had drawn $371. For the period March 29, 2017 through December 31, 2017 the Parent paid certain expenses on the Company's behalf prior to when the Grid Note was available totaling approximately $562 of which $122 has been repaid as of December 31, 2017. This is to be repaid the earliest to occur of: (x) thirty days after an initial public offering (y) ten (10) days after the Company receives funding of at least $5,000 other than through the IPO; and (z) December 31, 2018.

In addition, the Company needs to raise additional capital from either its Parent or from external sources in order to sustain its operations while continuing the longer-term efforts contemplated under its business plan. The Company expects to continue incurring losses for the foreseeable future and must raise additional capital to pursue its product development initiatives, conduct clinical trials and continue as a going concern. The Company cannot provide any assurance that it will raise additional capital. Management believes that the Company has access to capital resources through possible public or private equity offerings, debt financings, corporate collaborations or other means; however, the Company has not secured any commitment for new financing at this time nor can it provide any assurance that new financing will be available on commercially acceptable terms, if at all. If the Company is unable to secure additional capital, it may be required to curtail its research and development initiatives and clinical trials and take additional measures to reduce costs in order to conserve available cash in amounts sufficient to sustain operations and meet its obligations. These measures could cause significant delays in the Company's research and development, clinical trials and regulatory efforts, which is critical to the realization of its business plan and the future operations of the Company. The Company is currently exploring external financing alternatives which will be needed by the Company to fund its operations. The accompanying financial statements do not include any adjustments that may be necessary should the Company be unable to continue as a going concern.

Note 3. Summary of Significant Accounting Policies

Use of Estimates

The Company's financial statements are prepared in accordance with U.S. GAAP. The preparation of Bioxcel's financial statements requires the Company to make estimates and assumptions that impact the reported amounts of assets, liabilities and expenses in our financial statements and accompanying notes. The most significant estimates in the financial statements relate to the fair value of equity awards, the valuation of the Parent's common stock, allocation of expenses, assets and liabilities from the Parent and valuation allowance related to the Company's deferred tax assets and liabilities. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may ultimately materially differ from these estimates.

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 3. Summary of Significant Accounting Policies (Continued)

Cash

Cash is in accounts held at leading U.S. financial institutions that are insured by the Federal Deposit Insurance Corporation (FDIC) up to $250. Cash balances could exceed insured amounts at any given time; however, the Company has not experienced any such losses and believes the risk of loss is minimal.

Equipment

Equipment consist of computers that are stated at cost and depreciated using the straight-line method over estimated useful life of 5 years.

The Company follows the guidance provided by FASB ASC Topic 360-10, *Property, Plant, and Equipment*. Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated. Impairment charges are recognized at the amount by which the carrying amount of an asset exceeds the fair value of the asset. Assets to be disposed of are reported at the lower of the carrying amount or the fair value less costs to sell.

Since its inception the Company has not recognized any impairment or disposition of long lived assets.

Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with ASC 718, "*Compensation—Stock Compensation*", which requires the measurement and recognition of compensation expense based on estimated fair market values for all share-based awards made to employees and directors, including stock options. The Company's stock based compensation plan was adopted and became effective in August 2017. Prior to the Company adopting its stock based compensation plan the Parent granted stock options to its employees. As a result related stock-based compensation expense has been allocated to the Company over the required service period over which these BioXcel stock option awards vest in the same manner salary costs of employees have been allocated to the BTI Business in the carve-out process.

Both BioXcel and the Company's stock option awards are valued at fair value on the date of grant and that fair value is recognized over the requisite service period. The estimated fair value of stock option awards was determined using the Black-Scholes option pricing model on the date of grant. Significant judgment and estimates were used to estimate the fair value of these awards, as they are not publicly traded.

ASC 718 requires companies to estimate the fair value of share-based awards on the date of grant using an option-pricing model. Both BioXcel and the Company use the Black-Scholes option-pricing model as its method of determining fair value. This model is affected by both BioXcel and the Company's stock price as well as assumptions regarding a number of subjective variables. These subjective variables include, but are not limited to, both the Company's and BioXcel's expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The value of the portion of the award that is ultimately expected to vest is recognized as an expense in the statement of operations over the requisite service period. The periodic expense is then

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 3. Summary of Significant Accounting Policies (Continued)

determined based on the valuation of the options, and at that time an estimated forfeiture rate, if any, is used to reduce the expense recorded. The Parent's estimates of pre-vesting forfeitures is primarily based on the its historical experience and is adjusted to reflect actual forfeitures as the options vest. We have adopted FASB ASU 2016-09 and account for forfeitures as they occur, by reversing compensation cost when the award is forfeited.

Research and Development Costs

Research and development expenses include wages, benefits, facilities, supplies, external services, clinical study and manufacturing costs and other expenses that are directly related to its research and development activities. At the end of the reporting period, the Company compares payments made to third party service providers to the estimated progress toward completion of the research or development objectives. Such estimates are subject to change as additional information becomes available. Depending on the timing of payments to the service providers and the progress that the Company estimates has been made as a result of the service provided, the Company may record net prepaid or accrued expense relating to these costs. The Company expenses research and development costs as it incurs them.

Patent Costs

Costs related to filing and pursuing patent applications are recorded as general and administrative expense and expensed as incurred since recoverability of such expenditures is uncertain.

Income Taxes

The Company accounts for income taxes under Accounting Standards Codification ("ASC") 740 Income Taxes ("ASC 740"). Under ASC 740, deferred tax assets and liabilities are determined based on the differences between the financial reporting and tax bases of assets and liabilities and net operating loss and credit carryforwards using enacted tax rates in effect for the year in which the differences are expected to impact taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

ASC 740 also clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements and prescribes a recognition threshold and measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

Tax benefits claimed or expected to be claimed on a tax return are recorded in the Company's financial statements. A tax benefit from an uncertain tax position is only recognized if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution. Uncertain tax positions have had no impact on the Company's financial condition, results of operations or cash flows.

Fair Value Measurements

ASC 820 "*Fair Value Measurements*" defines fair value, establishes a framework for measuring fair value in GAAP and expands disclosures about fair value measurements. ASC 820 defines fair value as the

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 3. Summary of Significant Accounting Policies (Continued)

price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. ASC 820 establishes a fair value hierarchy that distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy under ASC 820 are described below:

- Level 1—Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

- Level 2—Directly or indirectly observable inputs as of the reporting date through correlation with market data, including quoted prices for similar assets and liabilities in active markets and quoted prices in markets that are not active. Level 2 also includes assets and liabilities that are valued using models or other pricing methodologies that do not require significant judgment since the input assumptions used in the models, such as interest rates and volatility factors, are corroborated by readily observable data from actively quoted markets for substantially the full term of the financial instrument.

- Level 3—Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions.

In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible as well as considers counterparty credit risk in its assessment of fair value.

The carrying amounts of cash, accounts payable and accrued expenses approximate fair value due to the short-term nature of these instruments.

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 3. Summary of Significant Accounting Policies (Continued)

Net Loss per Share

The Company computes basic net loss per share by dividing net loss per share available to common stockholders by the weighted average number of common shares outstanding for the period and excludes the effects of any potentially dilutive securities. Diluted earnings per share, if presented, would include the dilution that would occur upon the exercise or conversion of all potentially dilutive securities into common stock using the "treasury stock" and/or "if converted" methods as applicable. The Company did not have any potentially diluted securities outstanding in any period presented in the accompanying financial statements. The Company was incorporated on March 29, 2017 and loss per common share was calculated for the years ended December 31, 2017 and 2016 respectively, assuming the shares issued to the Parent at formation were outstanding for all periods presented.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board, or FASB, issued *ASU 2014-09 Revenue form Contracts with Customers.* Under this guidance on the recognition of revenue from customers. Under this guidance, an entity will recognize revenue when it transfers promised goods or services to customers in an amount that reflects what the entity expects to receive in exchange for the goods or services. This new guidance also requires more detailed disclosures to enable users of the financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The Company will adopt this guidance beginning on January 1, 2018. The guidance allows the selection of one of two methods of adoption, either the full retrospective approach, meaning the guidance would be applied to all periods presented, or modified retrospective approach, meaning the cumulative effect of applying the guidance would be recognized as an adjustment to opening accumulated deficit balance. Since the Company has no revenues to date, the Company does not believe the adoption of ASU-214-09 will have a material impact on its financial statements.

In August 2014, the FASB issued *ASU 2014-15 Disclosures of Uncertainties around an Entity's Ability to Continue as a Going Concern.* This ASU requires management to determine whether substantial doubt exists regarding the entity's going concern presumption, which generally refers to an entity's ability to meets its obligations as they become due. If substantial doubt exists but is not alleviated by management's plan, the footnotes must specifically state that "there is substantial doubt about the entity's ability to continue as a going concern within one year after the financial statements are issued." In addition, if substantial doubt exists, regardless of whether such doubt was alleviated, entities must disclose (a) principal conditions or events that raise substantial doubt about the entity's ability to continue as a going concern (before consideration of management's plans, if any); (b) management's evaluation of the significance of those conditions or events in relation to the entity's ability to meet its obligations; and (c) management's plans that are intended to mitigate the conditions or events that raise substantial doubt, or that did alleviate substantial doubt, about the entity's ability to continue as a going concern. If substantial doubt has not been alleviated, these disclosures should become more extensive in subsequent reporting periods as additional information becomes available. In the period that substantial doubt no longer exists (before or after considering management's plans), management should disclose how the principal conditions and events that originally gave rise to substantial doubt

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 3. Summary of Significant Accounting Policies (Continued)

have been resolved. The Company has adopted the provisions of ASU 2014-15 beginning January 1, 2016.

In February 2016, the FASB issued *ASU 2016-02 Lease Accounting Topic 842*. This ASU requires us to record all leases longer than one year on our balance sheet. Under the new guidance, when the Company records leases on its balance sheet under it will record a liability with a value equal to the present value of payments it will make over the life of the lease and an asset representing the underlying leased asset. The new accounting guidance requires the Company to determine if its leases are operating or financing leases, similar to current accounting guidance. The Company will record expense for operating type leases on a straight-line basis as an operating expense and it will record expense for finance type leases as interest expense. The new lease standard is effective for annual and interim periods beginning after December 15, 2018, with early adoption permitted. The Company must adopt the new standard on a modified retrospective basis, which requires it to reflect its leases on its balance sheet for the earliest comparative period presented. The Company is currently assessing the timing of adoption as well as the effects it will have on its financial statements and disclosures.

In March 2016, the FASB ASU 2016-09, *Compensation- Stock Compensation* simplifying certain aspects of share-based payment accounting. Under the amended guidance, the Company will recognize excess tax benefits and tax deficiencies as income tax expense or benefit in its statement of operations on a prospective basis. As the Company has a valuation allowance, this change will impact the Company's net operating loss carryforward and the valuation allowance disclosures. Additionally, the Company will classify excess tax benefits as an operating activity and classify amounts the Company withholds in shares for the payment of employee taxes as a financing activity on the statement of cash flows for each period presented. The amended guidance allows the Company to account for forfeitures when they occur or continue to estimate them. The Company will continue to estimate its forfeitures. The amended share-based payment standard is effective for annual and interim periods beginning after December 15, 2016, with early adoption permitted in any interim or annual period. The Company adopted this guidance on January 1, 2017 and does not believe the amended guidance will have a material impact on its financial results.

The SEC staff issued Staff Accounting Bulletin ("SAB") 118, which provides guidance on accounting for the tax effects of the U.S. tax reform announced on December 22, 2017 by the U.S. Government commonly referred to as the Tax Cuts and Jobs Act. SAB 118 provides a measurement period that should not extend beyond one year from the U.S. tax reform enactment date for companies to complete the accounting under Accounting Standards Codification ("ASC") 740. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the U.S. tax reform for which the accounting under ASC 740 is complete. Specifically, the Company will be required to revalue its U.S. deferred tax assets and liabilities due to the federal income tax rate reduction from 35 percent to 21 percent. Since the Company has provided a full valuation allowance against its deferred tax assets, the revaluation of the deferred tax assets did not have a material impact on any period presented.

Note 4. Transactions with BioXcel

The Company has entered into an asset contribution agreement, effective June 30, 2017, with BioXcel, as amended and restated on November 7, 2017, or the Contribution Agreement, pursuant to which

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 4. Transactions with BioXcel (Continued)

BioXcel agreed to contribute BioXcel's rights, title and interest in BXCL501, BXCL701, BXCL502 and BXCL702, and all of the assets and liabilities associated in consideration for (i) 40,000 shares of our common stock, (ii) $1 million upon completion of an initial public offering, (iii) $500 upon the later of the 12 month anniversary of an initial public offering and the first dosing of a patient in the bridging bioavailability/ bioequivalence study for the BXCL501 program, (iv) $500 upon the later of the 12 month anniversary of an initial public offering and the first dosing of a patient in the Phase 2 PoC open label monotherapy or combination trial with Keytruda for the BXCL701 program and (v) a one-time payment of $5,000 within 60 days after the achievement of $50,000 in cumulative net sales of any product or combination of products resulting from the development and commercialization of any one of the Candidates or a product derived therefrom.

The Company has also entered into a separation and shared services agreement with BioXcel that took effect on June 30, 2017, as amended and restated on November 7, 2017, or the Services Agreement, pursuant to which BioXcel will allow the Company to continue to use the office space, equipment, services and leased employees based on the agreed upon terms and conditions for a payment of defined monthly and/or hourly fees.

In connection with the Services Agreement, BioXcel agreed to provide the Company a line of credit, which shall be capped at $1,000, or the Total Funding Amount, pursuant to the terms of a grid note, or the Grid Note. The Grid Note shall be payable upon the earlier of (i) the completion of an initial public offering and (ii) December 31, 2018, together with interest on the unpaid balance of each advance made under the Grid Note, which shall accrue at a rate per annum equal to the applicable federal rate for short-term loans as of the date hereof, in each case calculated based on a 365-day year and actual days elapsed. As of December 31, 2017, has drawn down $371 under the Grid Note.

The Parent has made investments of approximately $2,971 commencing January 1, 2015 through March 29, 2017 (the date of incorporation of the Company) that relate to the BTI Business which was offset by total losses from the BTI Business of $3,285 resulting in net Parent investment of $(314) as on March 29, 2017. Furthermore, the net value of the assets and liabilities amounting to net liabilities of $126 which pertain to the BTI Business were allocated to the Company have also been classified under net Parent investment. As the Company became a substantive operating entity beginning June 30, 2017, the net Parent investment account totaling an amount of $440 was reclassified into accumulated deficit for the period ended June 30, 2017.

For the period March 29, 2017 through June 30, 2017, BioXcel paid for expenses on the Company's behalf totaling approximately $562. This amount has been reduced to $440 as of December 31, 2017. The Company has agreed to reimburse BioXcel for this amount upon the earlier of (i) 30 days after the completion of an initial public offering and (ii) December 31, 2018.

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 5. Equipment

Equipment consist of the following

	December 31, 2017	December 31, 2016
Computers	$ 5	$ 5
Accumulated depreciation and amortization	(1)	—
	$ 4	$ 5

Note 6. Commitments and Contingencies

The Company is required to pay to BioXcel the amount of $5,000 within 60 days after the achievement of $50,000 in cumulative net sales of any product or combination of products resulting from the development and commercialization of any one of the candidates BXCL501, BXCL701, BXCL502, and BXCL702 or a product derived therefrom.

The Company is also required to pay to BioXcel the amount of $2,000 in connection with an initial public offering ("IPO"), (x) the first $1,000 of which the Company shall pay to BioXcel in a lump-sum payment within thirty (30) days after closing of the IPO and (y) the second $1,000, (i) $500 of which is payable upon the later of the 12 month anniversary of an offering and the first dosing of a patient in the bridging bioavailability/bioequivalence study for the BXCL501 program and (ii) $500 of which is payable upon the later of the 12 month anniversary of an offering and the first dosing of a patient in the Phase 2 PoC open label monotherapy or combination trial with Keytruda for the BXCL701 program.

The employment agreements for Frank Yocca, the Chief Scientific Officer and Luca Rastelli, the Vice President—Oncology R&D have been contributed to the Company by the Parent as a part of the Agreement. The employment agreements provide, among other things, for the payment of three and four months respectively of severance compensation for terminations under certain circumstances. With respect to these agreement, at December 31, 2017, potential severance payout amounted to $104 and aggregated annual salaries amounted to $340.

The Company has entered into a contract with a clinical research organization in order to conduct its first human clinical trial in BXCL501. The contract totals approximately $1 million, to be incurred during 2018.

Note 7. Accrued Expenses

Accrued expenses consist of the following

	December 31, 2017	December 31, 2016
Accrued salaries and benefits	$ 79	$ 27
Professional and consultant fees	120	15
Legal Expenses	413	10
Materials and clinical trial expenses	403	—
	$ 1,015	$ 52

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 8. Stockholders' Deficit / Net Parent Investment

The Parent has made investments of approximately $539 and $1,969 during the years ended, December 31 2017 and 2016, respectively, which were offset by net losses of $(4,539) and $(2,120) during the corresponding periods resulting in net Parent investment of $0 and $(324) as on December 31, 2017 and 2016. There was no net Parent investment as of December 31, 2017 as all amounts were transferred to accumulated deficit as of June 30, 2017.

For the period for January 1, 2017 to the date of incorporation (March 29, 2017), the Parent has made an investment of $539 which was offset by net loss of $(529). Furthermore, at June 30, 2017, the net value of the assets and liabilities amounting to net liabilities of $126 which pertain to the BTI Business were allocated to the Company have also been classified under net Parent investment. As the Company became a substantive operating entity beginning June 30, 2017, the net Parent investment account totaling an amount of $440 was reclassified into accumulated deficit for the period ended June 30, 2017.

	Net Parent Investment
Balance, January 1, 2015	**$ —**
Investment from Parent	463
Net loss	(636)
Balance as of December 31, 2015	**(173)**
Investment from Parent	1,969
Net loss	(2,120)
Balance as of December 31, 2016	**(324)**
Investment from Parent	539
Net loss	(529)
Balance as of March 29, 2017 (date of incorporation)	**(314)**
For the six months period ended June 30, 2017	
Liabilities assumed from Parent	(126)
Transfer to accumulated deficit	440
Balance as of June 30, 2017	**$ —**

Authorized Capital

The Company is authorized to issue up to 100,000 shares of common stock with a par value of $0.001 per share. 40,000 shares were issued to BioXcel pursuant to the Contribution Agreement—see Note 4.

Description of Common Stock

Each share of common stock has the right to one vote. The holders of common stock are entitled to dividends when funds are legally available and when declared by the board of directors.

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 8. Stockholders' Deficit / Net Parent Investment (Continued)

On September 29, 2017, the Company entered into a Common Stock Purchase Agreement under which, the Company agreed to sell to the Purchasers, for cash, 657 shares of Common stock, par value $001. per share, for the purchase price of $1,142.86 per share. Gross and net proceeds totaled $751. In October 2017 the Company sold an additional 1,147 shares of Common stock with gross and net proceeds of $1,311. In January and February 2018, the Company sold 1,196 shares of common stock at $1,629.45 per share for total gross and net proceeds of approximately $1,950.

Registration Rights

Certain shareholders have demand registration rights with respect to these securities, as set forth in the stock Purchase Agreement. These registration rights would require the Company to give notice to each Investor and include in such registration statement, other than in an S-1 filing all or any part of the Shares that the Purchaser requests to be registered; however, that the Company shall not be required to register the resale of any shares that are eligible for resale under Rule 144 of the Securities Act without any requirement for the Company to maintain current public information and without any limitation on volume or manner of sale.

Anti Dilution Protection

In the event that prior to an IPO, and between September 30, 2017 and September 30, 2018, the Company issues additional securities below $1,142.67 per share of common stock, the Company shall issue the investors additional shares of common stock based on a specific formula which would average the price of the shares sold under these stock purchase agreements with shares sold at a lower purchase price.

Note 9 Stock-Based Compensation

Stock Options

The Company's 2017 Stock Incentive Plan (the "2017 Stock Plan") became effective in August 2017 and will expire in August 2027. Under the 2017 Stock Plan, the Company may grant incentive stock options, non-statutory stock options, restricted stock awards and other stock-based awards.

As of December 31, 2017, there were 12,500 shares of the Company's common stock authorized for issuance under the 2017 Stock Plan. Options granted under the 2017 Stock Plan have a term of ten years with vesting determined by the board of directors, generally over a four-year term.

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 9 Stock-Based Compensation (Continued)

The fair value of options at date of grant was estimated using the Black-Scholes option-pricing model with the following assumptions. Stock-based awards to non-employees are re-measured at fair value each financial reporting date until performance is complete:

Employees

	For the Year Ended December 31, 2017
Exercise price per share	$97.61 - $1,314.20
Expected stock price volatility	76.61% - 77.65%
Risk-free rate of interest	1.78% - 2.17%
Fair value of grants per share	$62.45 - $936.00
Expected Term (years)	5.2 - 7.0

Non-Employees

	For the Year Ended December 31, 2017
Exercise price per share	$ 97.61
Expected stock price volatility	77.50%
Risk-free rate of interest	2.39%
Fair value of grants per share	$ 1915.50
Expected Term (years)	9.6

The Company does not have a history of market prices of its common stock as it is not a public company and, as such, volatility was estimated using historical volatilities of similar public companies. The expected life of the employee awards is estimated based on the simplified method, which calculates the expected life based upon the midpoint of the term of the award and the vesting period. The Company uses the simplified method because it does not have sufficient option exercise data to provide a reasonable basis upon which to estimate the expected term. The expected term of non-employee awards represents the awards contractual term. The expected dividend yield is 0% as the Company has no history of paying dividends nor does management expect to pay dividends over the contractual terms of these options. The risk-free interest rates are based on the United States Treasury yield curve in effect at the time of grant, with maturities approximating the expected life of the stock options.

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 9 Stock-Based Compensation (Continued)

The following table summarizes information about stock option activity during the period the Plan was in effect (in thousands, except share and per share data):

Employee Options

(Dollars thousands, expect shares and per share amounts)	Number of Shares	Weighted Average Exercise Price per Share	Total Intrinsic Value	Weighted Average Remaining Contractual Life (in years)
Employee options granted	7,652	$ 153.89	$ 13,892	9.7
Outstanding as of December 31, 2017	7,652	$ 153.89	$ 13,892	9.7
Options vested and exercisable as of December 31, 2017	524	97.61	$ 981	9.6

Non-employee Options

(Dollars thousands, expect shares and per share amounts)	Number of Shares	Weighted Average Exercise Price per Share	Total Intrinsic Value	Weighted Average Remaining Contractual Life (in years)
Non-employee options granted	2,095	$ 97.61	$ 3,921	9.6
Outstanding as of December 31, 2017	2,095	$ 97.61	$ 3,921	9.6
Options vested and exercisable as of December 31, 2017	—	$ —	$ —	—

The Company granted 9,747 options to purchase shares of common stock during the year ended December 31, 2017. No options were exercised during the year ended December 31, 2017 and 2,753 shares remain available for grant as of December 31, 2017. On December 28, 2017 the board of directors accelerated the vesting of options to purchase 524 shares of common stock previously granted to our chairman of the board of directors because of the unique scientific and business skills and guidance he has provided to the Company, which has resulted in an IND Exemption for BXCL501 and a clinical development plan for BXCL701. As a result, under ASC 718 this is considered a type 1 probable to probable modification of a vesting condition and was accounted for under ASC 718 by expensing the balance of the award during the period ending December 31, 2017. The board has no plans to accelerate any other stock options granted by the Company. This accelerated vesting resulted in charge to general and administrative expenses of approximately $30.

Compensation costs associated with the Company's stock options are recognized, based on the grant-date fair values of these options, over the requisite service period. Accordingly, the Company recognized stock based compensation expense of $1.2 million for the year ended December 31, 2017. There was no corresponding charge for corresponding period ending December 31, 2016 as the plan did not exist.

Unrecognized compensation expense related to unvested awards as of December 31, 2017 was $3.1 million for non-employees and $498 for employees and will be recognized over the remaining

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 9 Stock-Based Compensation (Continued)

vesting periods of the underlying awards. The weighted-average period over which such compensation is expected to be recognized is 1.8 years for non-employees and 9 months for employees.

BioXcel Charges

The financial statements include certain expenses of BioXcel, the parent, including stock-based compensation, that were carved-out of the historical financial results of BioXcel based on the percentage of the expense attributable to BTI related activities.

BioXcel, has granted stock options to its employees under its own Equity Incentive Plan ("BioXcel Plan"). Stock-based compensation expense from the BioXcel Plan is allocated to the Company over the period over which those stock option awards vest and are based the on the percentage of time spent on Company activities compared to BioXcel activities, which is the same basis used for allocation of salary costs. The BioXcel stock option awards are valued at fair value on the date of grant and that fair value is recognized over the requisite service period. The estimated fair value of these BioXcel stock option awards was determined using the Black Scholes option pricing model on the date of grant. Significant judgment and estimates were used to estimate the fair value of these awards, as they are not publicly traded.

For the years ended December 31, 2017 and 2016 share-based compensation expense recognized by the Company in its statements of operations related to BioXcel equity awards totaled $439 and $671 respectively. For the year ending December 31, 2017 $199 of the $439 share based compensation is part of the net loss for the period January 1, 2017 to June 30, 2017 which was transferred to accumulated deficit as explained in Note 8.

Total share based compensation charges for the years ending December 31, 2017 and 2016 were $1,606 and $671 respectively.

Note 10. Income Taxes

The Parent is a standalone S corporation and its tax obligations were passed through to its shareholders and were not a liability of the S corporation. As a result, BioXcel does not require a tax provision for federal or state purposes.

Pursuant to incorporation of the Company as a C corporation on March 29, 2017, BioXcel became the sole owner of BioXcel Thereapeutics, Inc., and contributed certain assets to the Company in a tax free transaction. From the date of incorporation, the Company is a standalone C corporation subject to corporate income tax and the deferred taxes of the Company have been calculated accordingly.

The significant components of the Company's net deferred tax assets at December 31, 2017 are shown below. In determining the realizability of the Company's net deferred tax asset, the Company considered numerous factors, including historical profitability, estimated future taxable income, and the industry in which it operates. Based on this information the Company has provided a valuation

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 10. Income Taxes (Continued)

allowance for the full amount of its net deferred tax asset because the Company has determined that it is more likely than not that it will not be realized.

	2017
Federal net operating losses	$ 627
State net operating losses	212
Stock based compensation	268
Federal tax credit	42
Accrued expense	9
Total gross deferred tax assets	**1,158**
Less: valuation allowance	$ (1,158)
Net deferred tax assets	**$ —**

A reconciliation between the Company's effective tax rate and the federal statutory rate for the period from inception to December 31, 2017 is as follows:

	2017	
Federal Statutory Rate	$ (1,543)	34%
Change in Federal Rate	517	–11.38%
Permanent Differences	192	–4.24%
Research and Development	(42)	(0.92)%
State Taxes	—	–0%
Valuation Allowance	876	–19.30%
Effective Tax Rate	—	0%

At December 31, 2017, the Company had approximately $2.986 million of gross federal and state net operating loss carry-forwards. If not utilized, the federal and state net operating loss carry-forwards will begin to expire in 2037. The utilization of such net operating loss carry-forwards and realization of tax benefits in future years depends predominantly upon having taxable income. The Company also has approximately $42 of federal research and development credits which will begin to expire in 2037 if not utilized.

Utilization of the NOL and research tax credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that has occurred or that could occur in the future, as required by Section 382 of the Code, as well as similar state and foreign provisions. These ownership changes may limit the amount of NOL and research tax credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an "ownership change" as defined by Section 382 of the Code results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50 percentage points of the outstanding stock of a company by certain stockholders or public groups. To date, the Company's NOL's have not been subject to Section 382 limitation.

Entities are also required to evaluate, measure, recognize and disclose any uncertain income tax provisions taken on their income tax returns. The Company has analyzed its tax positions and has

BIOXCEL THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(amounts in thousands, except share and per share data)

Note 10. Income Taxes (Continued)

concluded that as of December 31, 2017 there were no uncertain positions. Interest and penalties, if any, as they relate to income taxes assessed, are included in the income tax provision. There was no income tax related interest and penalties included in the income tax provision.

For the year ended December 31, 2017, the Company revised its estimated annual effictive rate to reflect a change in the federal statutory rate from 35% to 21%, resulting from legislation that was enacted on December 22, 2017. The rate change is effective beginning of our calendar year 2018.

In addition, to reflect the new corporate tax rate beginning January 1, 2018, we recognized a tax benefit in our tax provision for the period related to adjusting our deferred tax balance to reflect the new corporate tax rate. As a result, income tax expense reported for the year was adjusted to reflect the change in the tax law and resulted in a decrease in the income tax expense of $470 for the year.

Note 11. Deferred Offering Costs

The Company capitalizes certain legal and other third-party fees that are directly associated with in-process equity financings as deferred offering costs until such financings are consummated. After consummation of the equity financing, these costs are recorded as a reduction of the proceeds generated as a result of the offering. Should the planned equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expense in the statements of operations. Deferred offering costs amounted to $461 at December 31, 2017. There were no deferred offering costs at December 31, 2016.

Note 12. Subsequent Events

In January and February 2018, the Company entered into a series of common stock purchase agreements under which, the Company agreed to sell to the purchasers, for cash, 1,196 shares of common stock, par value $.001 per share, for the purchase price of $1,629.45 per share. Gross and net proceeds totaled approximately $1,950.

On February 5, 2018, the Company entered into a contract to manufacture BXCL 701 for approximately $267.

Table of Contents

Shares

BIOXCEL THERAPEUTICS, INC.

Common Stock

Prospectus

, 2018

Joint Book-Running Managers

Barclays

UBS Investment Bank

BMO Capital Markets

Lead Manager

Canaccord Genuity

Until , 2018 (25 days after the date of this prospectus), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the dealers' obligation to deliver a prospectus when acting as an underwriter and with respect to their unsold allotments or subscriptions.

PART II—INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of the securities being registered. All the amounts shown are estimates except the SEC registration fee and the FINRA filing fee.

	Amount to be paid
SEC registration fee	$ 8,590.50
FINRA filing fee	*
The Nasdaq Capital Market initial listing fee	*
Blue sky qualification fees and expenses	*
Transfer agent and registrar fees	*
Accounting fees and expenses	*
Legal fees and expenses	*
Printing and engraving expenses	*
Miscellaneous	*
Total	$ 8,590.50

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers

Section 102 of the General Corporation Law of the State of Delaware (the "DGCL") permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our amended and restated certificate of incorporation provides that no director of the Company shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Upon consummation of this offering, our amended and restated certificate of incorporation and amended and restated bylaws will provide indemnification for our directors and officers to the fullest

extent permitted by the DGCL. We will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

Prior to the consummation of this offering, we intend to enter into separate indemnification agreements with each of our directors and executive officers. Each indemnification agreement will provide, among other things, for indemnification to the fullest extent permitted by law and our amended and restated certificate of incorporation and amended and restated bylaws against any and all expenses, judgments, fines, penalties and amounts paid in settlement of any claim. The indemnification agreements will provide for the advancement or payment of all expenses to the indemnitee and for the reimbursement to us if it is found that such indemnitee is not entitled to such indemnification under applicable law and our amended and restated certificate of incorporation and amended and restated bylaws.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act against certain liabilities.

Item 15. Recent Sales of Unregistered Securities

On March 29, 2017, we issued 40,000 shares of common stock to BioXcel Corporation pursuant to the terms of that certain asset contribution agreement dated June 30, 2017. Such offer, sale and issuance was exempt from registration under Section 4(a)(2) of the Securities Act.

On August 23, 2017, we granted stock options to purchase an aggregate of 9,271 shares of common stock at an exercise price of $97.61 per share, to a total of 25 employees, consultants and directors under our 2017 Equity Incentive Plan. All of these options remain outstanding. The offers, sales and issuances of these securities were deemed to be exempt from registration under the Securities Act in reliance on Rule 701 thereunder as offers and sale of securities pursuant to certain compensatory benefit plans and contracts relating to compensation in compliance with Rule 701.

On September 15, 2017, we granted stock options to purchase 122 shares of common stock at an exercise price of $97.61 per share, to a consultant under our 2017 Equity Incentive Plan. All of these options remain outstanding. The offers, sales and issuances of these securities were deemed to be exempt from registration under the Securities Act in reliance on Rule 701 thereunder as offers and sale of securities pursuant to certain compensatory benefit plans and contracts relating to compensation in compliance with Rule 701.

On September 29, 2017, we sold an aggregate of 1,619 shares of our common stock to accredited investors, including 175 shares to Peter Mueller, the chairman of our board of directors, at a price of $1,142.86 per share for aggregate gross proceeds to the Company of $1,850,289.84. Such offer, sale and issuance was exempt from registration under Section 4(a)(2) of the Securities Act.

On October 2, 2017, we granted stock options to purchase 354 shares of common stock at an exercise price of $1,314,20 per share, to an employee under our 2017 Equity Incentive Plan. All of these options remain outstanding. The offer, sale and issuance of these securities were deemed to be exempt from registration under the Securities Act in reliance on Rule 701 thereunder as offers and sale of securities pursuant to certain compensatory benefit plans and contracts relating to compensation in compliance with Rule 701.

On October 25, 2017, we sold an aggregate of 185 shares of our common stock to an accredited investor at a price of $1,142.86 per share for aggregate gross proceeds to the Company of $211,429.10. Such offer, sale and issuance was exempt from registration under Section 4(a)(2) of the Securities Act.

On January 3, 2018, we sold an aggregate of 614 shares of our common stock to Peter Mueller, the chairman of our board of directors, at a price of $1,629.45 per share for aggregate gross proceeds to the Company of $1,000,482.30. Such offer, sale and issuance was exempt from registration under Section 4(a)(2) of the Securities Act.

On January 31, 2018, we sold an aggregate of 122 shares of our common stock to an accredited investor at a price of $1,629.45 per share for aggregate gross proceeds to the Company of $198,792.90. Such offer, sale and issuance was exempt from registration under Section 4(a)(2) of the Securities Act.

On February 5, 2018, we sold an aggregate of 307 shares of our common stock to an accredited investor at a price of $1,629.45 per share for aggregate gross proceeds to the Company of $500,241.15. Such offer, sale and issuance was exempt from registration under Section 4(a)(2) of the Securities Act.

On February 9, 2018, we sold an aggregate of 153 shares of our common stock to an accredited investor at a price of $1,629.45 per share for aggregate gross proceeds to the Company of $249,305.85. Such offer, sale and issuance was exempt from registration under Section 4(a)(2) of the Securities Act.

Item 16. Exhibits and Financial Statement Schedules

EXHIBIT INDEX

Exhibit No.	Description
1.1	Form of Underwriting Agreement
3.1	Certificate of Incorporation, currently in effect
3.2	Form of Amended and Restated Certificate of Incorporation, to be effective immediately prior to the closing of this offering

Exhibit No.	Description
3.3	Bylaws, currently in effect
3.4	Form of Amended and Restated Bylaws, to be effective immediately prior to the closing of this offering
4.1	Grid Note, dated June 30, 2017
4.2*	Specimen Stock Certificate evidencing the shares of common stock
5.1*	Opinion of Sheppard, Mullin, Richter & Hampton LLP
10.1#	Amended and Restated Separation and Shared Services Agreement, effective November 7, 2017, by and between BioXcel Corporation and BioXcel Therapeutics, Inc.
10.2#	Amended and Restated Asset Contribution Agreement, effective November 7, 2017, by and between BioXcel Corporation and BioXcel Therapeutics, Inc.
10.3+	2017 Equity Incentive Plan
10.4+	Form of Incentive Stock Option Agreement under the 2017 Equity Incentive Plan
10.5+	Form of Non-Statutory Stock Option Agreement under the 2017 Equity Incentive Plan
10.6+	Form of Indemnification Agreement with directors and executive officers
10.7+	Employment Agreement, effective September 1, 2014, by and between BioXcel Corporation and Vimal Mehta
10.8	Form of Stock Purchase Agreement for September and October 2017 and January and February 2018 Private Placements
10.9	First Amendment to Employment Agreement, dated December 21, 2017, by and between BioXcel Corporation and Vimal Mehta
10.10+	Form of Employment Agreement by and between BioXcel Therapeutics, Inc. and Vimal Mehta, to be effective on the effective date of the registration statement.
10.11+	Employment Agreement, dated February 12, 2018, by and between BioXcel Therapeutics, Inc. and Frank Yocca
10.12+	Employment Agreement, effective October 2, 2017, by and between BioXcel Therapeutics, Inc. and Richard Steinhart
23.1	Consent of BDO USA LLP, independent registered public accounting firm
23.2*	Consent of Sheppard, Mullin, Richter & Hampton LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page to this registration statement)

* To be filed by Amendment

\+ Indicates a management contract or any compensatory plan, contract or arrangement

\# Confidential treatment is being requested for portions of this exhibit. These portions have been omitted from the registration statement and have been filed separately with the Securities and Exchange Commission.

Financial Statement Schedules

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

(b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of BioXcel Therapeutics, Inc. pursuant to the foregoing provisions, or otherwise, BioXcel Therapeutics, Inc. has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by BioXcel Therapeutics, Inc. of expenses incurred or paid by a director, officer or controlling person of BioXcel Therapeutics, Inc. in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, BioXcel Therapeutics, Inc. will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction, the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(c) The undersigned hereby further undertakes that:

(1) For purposes of determining any liability under the Securities Act the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by BioXcel Therapeutics, Inc. pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Branford, State of Connecticut, on the 12th day of February, 2018.

BIOXCEL THERAPEUTICS, INC.

By: /s/ VIMAL MEHTA

Vimal Mehta, Ph.D.
Chief Executive Officer, President and Secretary and Director

POWER OF ATTORNEY

Each of the undersigned officers and directors of BioXcel Therapeutics, Inc. hereby constitutes and appoints Vimal Mehta and Richard Steinhart, and each of them any of whom may act without joinder of the other, the individual's true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for the person and in his or her name, place and stead, in any and all capacities, to sign this registration statement of BioXcel Therapeutics, Inc. on Form S-1, and any other registration statement relating to the same offering (including any registration statement, or amendment thereto, that is to become effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended), and any and all amendments thereto (including post-effective amendments to the registration statement), and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated below.

Signature	Title	Date
/s/ VIMAL MEHTA Vimal Mehta, Ph.D.	Chief Executive Officer, President, Secretary and Director *(Principal Executive Officer)*	February 12, 2018
/s/ RICHARD STEINHART Richard Steinhart	Chief Financial Officer *(Principal Financial Officer and Principal Accounting Officer)*	February 12, 2018
/s/ PETER MUELLER Peter Mueller, Ph.D.	Chairman of the Board of Directors	February 12, 2018

Signature	Title	Date
/s/ KRISHNAN NANDABALAN Krishnan Nandabalan, Ph.D.	Director	February 12, 2018
/s/ SANDEEP LAUMAS Sandeep Laumas, M.D.	Director	February 12, 2018

Exhibit 1.1

[·]

BIOXCEL THERAPEUTICS, INC.

Common Stock

UNDERWRITING AGREEMENT

[*Insert date*]

BARCLAYS CAPITAL INC.
UBS SECURITIES LLC
BMO CAPITAL MARKETS CORP.,
As Representatives of the several Underwriters named in Schedule I attached hereto,

c/o Barclays Capital Inc.
745 Seventh Avenue
New York, New York 10019

c/o UBS Securities LLC
1285 Avenue of the Americas
New York, NY 10019

c/o BMO Capital Markets Corp.
3 Times Square, 25th Floor
New York NY 10036

Ladies and Gentlemen:

BioXcel Therapeutics, Inc., a Delaware corporation (the "***Company***"), proposes to sell [·] shares (the "***Firm Stock***") of the Company's common stock, par value $0.001 per share (the "***Common Stock***"). In addition, the Company proposes to grant to the underwriters named in Schedule I (the "***Underwriters***") attached to this agreement (this "***Agreement***") an option to purchase up to [·] additional shares of the Common Stock on the terms set forth in Section 2 (the "***Option Stock***"). The Firm Stock and the Option Stock, if purchased, are hereinafter collectively called the "***Stock***". This Agreement is to confirm the agreement concerning the purchase of the Stock from the Company by the Underwriters.

1. *Representations, Warranties and Agreements of the Company*. The Company represents, warrants and agrees that:

(a) A registration statement on Form S-1 (File No. 333-[·]) relating to the Stock has (i) been prepared by the Company in conformity with the requirements of the Securities Act of 1933, as amended (the "***Securities Act***"), and the rules and regulations of the Securities and Exchange Commission (the "***Commission***") thereunder; (ii) been filed with the Commission under the Securities Act; and (iii) become effective under the

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Securities Act. Copies of such registration statement and any amendment thereto have been delivered by the Company to you as the representatives (the "***Representatives***") of the Underwriters. As used in this Agreement:

(i) "***Applicable Time***" means [·] P.M. (New York City time) on [*insert date*];

(ii) "***Effective Date***" means the date and time at which the Registration Statement, or the most recent post-effective amendment thereto, was declared effective by the Commission;

(iii) "***Issuer Free Writing Prospectus***" means each "issuer free writing prospectus" (as defined in Rule 433 under the Securities Act);

(iv) "***Preliminary Prospectus***" means any preliminary prospectus relating to the Stock included in such registration statement or filed with the Commission pursuant to Rule 424(b) under the Securities Act;

(v) "***Pricing Disclosure Package***" means, as of the Applicable Time, the most recent Preliminary Prospectus, together with the information included in Schedule III hereto and each Issuer Free Writing Prospectus filed or used by the Company at or before the Applicable Time, other than a road show that is an Issuer Free Writing Prospectus but is not required to be filed under Rule 433 under the Securities Act;

(vi) "***Prospectus***" means the final prospectus relating to the Stock, as filed with the Commission pursuant to Rule 424(b) under the Securities Act;

(vii) "***Registration Statement***" means the registration statement, as amended as of the Effective Date, relating to the offer and sale of the Stock, including any Preliminary Prospectus or the Prospectus, all exhibits to such registration statement and including the information deemed by virtue of Rule 430A under the Securities Act to be part of such registration statement as of the Effective Date;

(viii) "***Testing-the-Waters Communication***" means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act; and

(ix) "***Written Testing-the-Waters Communication***" means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act.

Any reference to the "***most recent Preliminary Prospectus***" shall be deemed to refer to the latest Preliminary Prospectus included in the Registration Statement or filed pursuant to Rule 424(b) under the Securities Act prior to or on the date hereof. Any reference herein to the term "Registration Statement" shall be deemed to include the abbreviated registration statement to register additional shares of Common Stock under Rule 462(b) under the

Securities Act (the "***Rule 462(b) Registration Statement***"). The Commission has not issued any order preventing or suspending the use of any Preliminary Prospectus or the Prospectus or suspending the effectiveness of the Registration Statement, and no proceeding or examination for such purpose has been instituted or threatened by the Commission.

(b) From the time of initial confidential submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly or through any Person authorized to act on its behalf in any Testing-the-Waters Communication) through the date hereof, the Company has been and will be an "emerging growth company," as defined in Section 2(a) of the Securities Act (an "***Emerging Growth Company***").

(c) The Company (i) has not engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications, with the consent of the Representatives, with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act, or with institutions that are accredited investors within the meaning of Rule 501 under the Securities Act and (ii) has not authorized anyone other than the Representatives to engage in Testing-the-Waters Communications. The Company reconfirms that the Representatives have been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed or approved for distribution any Written Testing-the-Waters Communications other than those listed on Schedule VI hereto.

(d) The Company was not at the time of initial filing of the Registration Statement and at the earliest time thereafter that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Stock, is not on the date hereof and will not be on the applicable Delivery Date, an "ineligible issuer" (as defined in Rule 405 under the Securities Act).

(e) The Registration Statement conformed and will conform in all material respects on the Effective Date and on the applicable Delivery Date, and any amendment to the Registration Statement filed after the date hereof will conform in all material respects when filed, to the requirements of the Securities Act and the rules and regulations thereunder. The most recent Preliminary Prospectus conformed, and the Prospectus will conform, in all material respects when filed with the Commission pursuant to Rule 424(b) under the Securities Act and on the applicable Delivery Date to the requirements of the Securities Act and the rules and regulations thereunder.

(f) The Registration Statement did not, as of the Effective Date, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; *provided* that no representation or warranty is made as to information contained in or omitted from the Registration Statement in reliance upon and in conformity with written information furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein, which information is specified in Section 8(e).

(g) The Prospectus will not, as of its date or as of the applicable Delivery Date, contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading;

provided that no representation or warranty is made as to information contained in or omitted from the Prospectus in reliance upon and in conformity with written information furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein, which information is specified in Section 8(e).

(h) The Pricing Disclosure Package did not, as of the Applicable Time, contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that no representation or warranty is made as to information contained in or omitted from the Pricing Disclosure Package in reliance upon and in conformity with written information furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein, which information is specified in Section 8(e).

(i) Each Issuer Free Writing Prospectus listed in Schedule IV hereto, when taken together with the Pricing Disclosure Package, did not, as of the Applicable Time, contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that no representation or warranty is made as to information contained in or omitted from such Issuer Free Writing Prospectus listed in Schedule IV hereto in reliance upon and in conformity with written information furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein, which information is specified in Section 8(e).

(j) No Written Testing-the-Waters Communication, as of the Applicable Time, when taken together with the Pricing Disclosure Package, contained an untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that no representation or warranty is made as to information contained in or omitted from such Written Testing-the-Waters Communication listed on Schedule VI hereto in reliance upon and in conformity with written information furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein, which information is specified in Section 8(e); and the Company has filed publicly on EDGAR at least 15 calendar days prior to any "road show" (as defined in Rule 433 under the Securities Act), any confidentially submitted registration statement and registration statement amendments relating to the offer and sale of the Stock. Each Written Testing-the-Waters Communications did not, as of the Applicable Time, and at all times through the completion of the public offer and sale of the Stock will not, include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus.

(k) Each Issuer Free Writing Prospectus conformed or will conform in all material respects to the requirements of the Securities Act and the rules and regulations thereunder on the date of first use, and the Company has complied with all prospectus delivery and any filing requirements applicable to such Issuer Free Writing Prospectus pursuant to the Securities Act and rules and regulations thereunder. The Company has not made any offer relating to the Stock that would constitute an Issuer Free Writing Prospectus without the prior written consent of the Representatives, except as set forth on Schedule V] hereto. The Company has retained in accordance with the Securities Act and the rules and regulations thereunder all Issuer Free Writing Prospectuses that were not required to be filed pursuant to the Securities Act and the rules and

regulations thereunder. The Company has taken all actions necessary so that any "road show" (as defined in Rule 433 under the Securities Act) in connection with the offering of the Stock will not be required to be filed pursuant to the Securities Act and the rules and regulations thereunder.

(l) The Company has been duly organized, is validly existing and in good standing as a corporation or other business entity under the laws of its jurisdiction of organization and is duly qualified to do business and in good standing as a foreign corporation or other business entity in each jurisdiction in which its ownership or lease of property or the conduct of its businesses requires such qualification, except where the failure to be so qualified or in good standing (i) could not, in the aggregate, reasonably be expected to have a material adverse effect on the condition (financial or otherwise), results of operations, stockholders' equity, properties, business or prospects of the Company taken as a whole [or (ii) impair in any material respect the ability of the Company to perform its obligations under this Agreement or to consummate any transactions contemplated by this Agreement, the Pricing Disclosure Package or the Prospectus (any such effect as described in clauses (i) or (ii)], a "***Material Adverse Effect***"). The Company has all power and authority necessary to own or hold its properties and to conduct the businesses in which it is engaged. The Company does not own or control, directly or indirectly, any corporation, association or other entity.

(m) The Company has an authorized capitalization as set forth in each of the most recent Preliminary Prospectus and the Prospectus, and all of the issued shares of capital stock of the Company have been duly authorized and validly issued, are fully paid and non-assessable, conform in all material respects to the description thereof contained in the most recent Preliminary Prospectus and were issued in compliance with federal and state securities laws and not in violation of any preemptive right, resale right, right of first refusal or similar right. All of the Company's options, warrants and other rights to purchase or exchange any securities for shares of the Company's capital stock have been duly authorized and validly issued, conform to the description thereof contained in the most recent Preliminary Prospectus and were issued in compliance with federal and state securities laws.

(n) The shares of the Stock to be issued and sold by the Company to the Underwriters hereunder have been duly authorized and, upon payment and delivery in accordance with this Agreement, will be validly issued, fully paid and non-assessable, will conform to the description thereof contained in the most recent Preliminary Prospectus, will be issued in compliance with federal and state securities laws and will be free of statutory and contractual preemptive rights, rights of first refusal and similar rights.

(o) The Company has all requisite corporate power and authority to execute, deliver and perform its obligations under this Agreement. This Agreement has been duly and validly authorized, executed and delivered by the Company.

(p) The issue and sale of the Stock, the execution, delivery and performance of this Agreement by the Company, the consummation of the transactions contemplated hereby and the application of the proceeds from the sale of the Stock as described under "Use of Proceeds" in the most recent Preliminary Prospectus will not (i) conflict with or result in a breach or violation of any of the terms or provisions of, impose any lien, charge or encumbrance upon any property or assets of the Company, or constitute a default under, any indenture, mortgage, deed of trust, loan

agreement, license, lease or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject; (ii) result in any violation of the provisions of the charter or by-laws (or similar organizational documents) of the Company; or (iii) result in any violation of any statute or any judgment, order, decree, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its properties or assets, except, with respect to clauses (i) and (iii), conflicts, breaches, violations, or defaults that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(q) No consent, approval, authorization or order of, or filing, registration or qualification with, any court or governmental agency or body having jurisdiction over the Company or any of its properties or assets is required for the issue and sale of the Stock, the execution, delivery and performance of this Agreement by the Company, the consummation of the transactions contemplated hereby, the application of the proceeds from the sale of the Stock as described under "Use of Proceeds" in the most recent Preliminary Prospectus, except for (i) the registration of the Stock under the Securities Act and such consents, approvals, authorizations, orders, filings, registrations or qualifications as may be required under the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), and applicable state and foreign securities laws and/or the bylaws and rules of the Financial Industry Regulatory Authority, Inc. (the "***FINRA***") in connection with the purchase and sale of the Stock by the Underwriters and (ii) such consents, approvals, authorizations, orders, filings, registrations or qualifications that, if not obtained, have not or would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(r) The historical financial statements (including the related notes and supporting schedules) included in the most recent Preliminary Prospectus comply as to form in all material respects with the requirements of Regulation S-X under the Securities Act and present fairly the financial condition, results of operations and cash flows of the entities purported to be shown thereby at the dates and for the periods indicated and have been prepared in conformity with accounting principles generally accepted in the United States applied on a consistent basis throughout the periods involved.

(s) BDO USA, LLP, who has certified certain financial statements of the Company, whose report appears in the most recent Preliminary Prospectus and who have delivered the initial letter referred to in Section 7(g) hereof, are independent public accountants as required by the Securities Act and the rules and regulations thereunder.

(t) The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) of the Exchange Act) that complies with the requirements of the Exchange Act and that has been designed by, or under the supervision of, the Company's principal executive and principal financial officers, 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 in the United States. The Company maintains internal accounting controls sufficient to provide reasonable assurances regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorization,

(ii) transactions are recorded as necessary to permit preparation of the Company's financial statements in conformity with accounting principles generally accepted in the United States and to maintain accountability for its assets, (iii) access to the Company's assets is permitted only in accordance with management's general or specific authorization and (iv) the recorded accountability for the Company's assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. As of the date of the most recent balance sheet of the Company reviewed or audited by BDO USA, LLP and the audit committee of the board of directors of the Company (the "***Audit Committee***"), there were no material weaknesses in the Company's internal controls.

(u) (i) The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act), (ii) such disclosure controls and procedures are designed to ensure that the information is accumulated and communicated to management of the Company, including its principal executive officer and principal financial officer, as appropriate and (iii) such disclosure controls and procedures are effective in all material respects to perform the functions for which they were established.

(v) Since the date of the most recent balance sheet of the Company reviewed or audited by BDO USA, LLP and the Audit Committee, (i) the Company has not been advised of or become aware of (A) any significant deficiencies in the design or operation of internal controls that could adversely affect the ability of the Company to record, process, summarize and report financial data, or any material weaknesses in internal controls, or (B) any fraud, whether or not material, that involves management or other employees who have a significant role in the internal controls of the Company; and (ii) there have been no significant changes in internal controls or in other factors that could significantly affect internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses.

(w) The section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies" set forth in the most recent Preliminary Prospectus accurately and fully describes (i) the accounting policies that the Company believes are the most important in the portrayal of the Company's financial condition and results of operations and that require management's most difficult, subjective or complex judgments ("***Critical Accounting Policies***"); (ii) the judgments and uncertainties affecting the application of Critical Accounting Policies; and (iii) the likelihood that materially different amounts would be reported under different conditions or using different assumptions and an explanation thereof.

(x) There is and has been no failure on the part of the Company and any of the Company's directors or officers, in their capacities as such, to comply with any provision of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated in connection therewith applicable to the Company or its directors or officers.

(y) Since the date of the latest audited financial statements included in the most recent Preliminary Prospectus, the Company has not (i) sustained any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, (ii) issued or granted any securities, (iii) incurred any material liability or material obligation, direct or contingent, other than liabilities and obligations that were incurred in the ordinary course of business, (iv) entered

into any material transaction not in the ordinary course of business, or (v) declared or paid any dividend on its capital stock, and since such date, there has not been any change in the capital stock or long-term debt of the Company or any adverse change, or any development involving a prospective adverse change, in or affecting the condition (financial or otherwise), results of operations, stockholders' equity, properties, management, business or prospects of the Company taken as a whole, in each case except as could not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(z) The Company has good and marketable title in fee simple to all real property and good and marketable title to all personal property owned by them, in each case free and clear of all liens, encumbrances and defects, except such liens, encumbrances and defects as are described in the most recent Preliminary Prospectus or such as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company. All assets held under lease by the Company are held by them under valid, subsisting and enforceable leases, with such exceptions as do not materially interfere with the use made and proposed to be made of such assets by the Company.

(aa) The Company possesses such permits, certificates licenses, franchises, clearances, registrations, exemptions, certificates of need and other approvals or authorizations of governmental or regulatory authorities as are necessary under applicable law to own their properties and conduct their businesses in the manner described in the most recent Preliminary Prospectus (collectively, "***Permits***"), including without limitation, all such Permits required by the United States Food and Drug Administration ("***FDA***") or any component thereof and/or by any other U.S., state, local or foreign government or drug regulatory agency (collectively, the "***Regulatory Agencies***"), except where failure to so possess would not, in the aggregate, reasonably be expected to have a Material Adverse Effect. All of the Permits are valid and in full force and effect, except when the invalidity of such Permits or the failure of such Governmental Licenses to be in full force and effect would not, singly or in the aggregate, result in a Material Adverse Effect. The Company has fulfilled and performed all of their respective obligations with respect to the Permits, and no event has occurred that allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other impairment of the rights of the holder or any such Permits, except for any of the foregoing that could not reasonably be expected to have a Material Adverse Effect. The Company has not received notice of proceedings relating to any revocation or modification of any such Permits or has any reason to believe that any such Permits will not be renewed in the ordinary course.

(bb) To the Company's knowledge, the Company owns or possesses, or can acquire on reasonable terms, adequate rights to use all patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, know-how, software, systems and technology (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) (collectively, "***Intellectual Property Rights***") necessary for or material to the conduct of its business now conducted or proposed in the Registration Statement, the Prospectus or the Pricing Disclosure Package to be conducted, and has no reason to believe that the conduct of its business will conflict with,

and have not received any notice of any claim of conflict with, any such rights of others. The expected expiration of any such Intellectual Property Rights would not, individually or in the aggregate, have a Material Adverse Effect. To the knowledge of the Company, none of the

Intellectual Property Rights owned by the Company are invalid or unenforceable, in whole or in part, and the Company is unaware of any facts that would form a reasonable basis for such a determination. To the knowledge of the Company, there are no unreleased liens or security interests which have been filed against any of the Intellectual Property Rights owned by or licensed to the Company. Except as disclosed in the Registration Statement, the Prospectus or the Pricing Disclosure Package (i) the Company is not obligated to pay a material royalty, grant a license or provide other material consideration to any third party in connection with the Intellectual Property Rights owned by or licensed to the Company; (ii) to the Company's knowledge, there are no rights of third parties to any of the Intellectual Property Rights owned by or licensed to the Company, in any field of use, other than the respective licensor to the Company of such Intellectual Property Rights; (iii) to the Company's knowledge, there is no material infringement, misappropriation breach, default or other violation, or the occurrence of any event that with notice or the passage of time would constitute any of the foregoing, by the Company, or third parties of any of the Intellectual Property Rights owned by or licensed to the Company; (iv) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others (a) challenging the Company's rights in or to, or the violation of any of the terms of, any of their Intellectual Property Rights; (b) challenging the validity, enforceability or scope of any such Intellectual Property Rights; or (c) that alleges the Company infringes, misappropriates or otherwise violates or conflicts with any Intellectual Property Rights or other proprietary rights of others, and, in each case, the Company is unaware of any facts which would form a reasonable basis for any such claim; (v) none of the Intellectual Property Rights owned by or licensed to the Company in its business has been obtained or is being used by the Company in violation of any contractual obligation binding on the Company; and (vi) to the Company's knowledge, no employee of the Company is in or has ever been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company or actions undertaken by the employee while employed with the Company. To the knowledge of the Company, (1) neither the commercial development nor the sale of any of the proposed products or processes of the Company, as described in the Registration Statement, the Prospectus or the Pricing Disclosure Package infringes, misappropriates or otherwise violates, or would, upon the commercialization of such proposed products or processes, infringe, misappropriate or otherwise violate, any Intellectual Property Rights of any third party; and (2) each current and former employee and consultant of the Company (a) has executed an inventions assignment and confidentiality agreement with the Company, on or about the respective date of hire, and signed copies of such agreements have been made available to the Representatives and their counsel; and (b) has signed or agreed to assign to the Company any and all Intellectual Property Rights he or she may possess or may have possessed that are related to the Company's business, as currently conducted and as proposed to be conducted, as described in the Registration Statement, the Prospectus or the Pricing Disclosure Package. All patent applications owned by or licensed to the Company or under which the Company has rights have, to the knowledge of the Company, been duly and properly filed and maintained; to the knowledge of the Company, the parties prosecuting such applications have complied with their duty of candor and disclosure to the U.S. Patent and Trademark Office (the "***USPTO***") in connection with such applications; and the Company is not aware of any facts required to be disclosed to the USPTO that were not disclosed to the USPTO and which would preclude the grant of a patent in connection with any

such application or could form the basis of a finding of invalidity with respect to any patents that may be issued with respect to such applications.

(cc) There are no legal or governmental proceedings pending to which the Company is a party or of which any property or assets of the Company is the subject that could, in the aggregate, reasonably be expected to have a Material Adverse Effect or could, in the aggregate, reasonably be expected to have a material adverse effect on the performance of this Agreement or the consummation of the transactions contemplated hereby; and to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or others.

(dd) There are no contracts or other documents required to be described in the Registration Statement or the most recent Preliminary Prospectus or filed as exhibits to the Registration Statement, that are not described and filed as required. The statements made in the most recent Preliminary Prospectus, insofar as they purport to constitute summaries of the terms of the contracts and other documents described and filed, constitute accurate summaries of the terms of such contracts and documents in all material respects. The Company has no knowledge that any other party to any such contract or other document has any intention not to render full performance as contemplated by the terms thereof.

(ee) Except as would not, in the aggregate, reasonably be expected to have a Material Adverse Effect, the Company carries, or is covered by, insurance from insurers of recognized financial responsibility in such amounts and covering such risks as is adequate for the conduct of its business and the value of their respective properties and as is customary for companies engaged in similar businesses in similar industries. All policies of insurance of the Company are in full force and effect; the Company is in compliance with the terms of such policies in all material respects; and the Company has not received notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance; there are no claims by the Company under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause; and the Company has no reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that could not reasonably be expected to have a Material Adverse Effect.

(ff) No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, on the other hand, that is required to be described in the most recent Preliminary Prospectus which is not so described.

(gg) No labor disturbance by or dispute with the employees of the Company exists or, to the knowledge of the Company, is imminent that could reasonably be expected to have a Material Adverse Effect.

(hh) The Company (i) is not in violation of its charter or by-laws (or similar organizational documents), (ii) is not in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant, condition or other obligation contained in any indenture, mortgage, deed of trust,

loan agreement, license or other agreement or instrument to which it is a party or by which it is bound or to which any of its properties or assets is subject, (iii) is not in violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over it or its property or assets or (iv) has not failed to obtain any license, permit, certificate, franchise or other governmental authorization or permit necessary to the ownership of its property or to the conduct of its business, except in the case of clauses (ii), (iii) and (iv), to the extent any such conflict, breach, violation or default could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(ii) The Company (i) is, and at all times prior hereto was, in compliance with all laws, regulations, ordinances, rules, orders, judgments, decrees, permits or other legal requirements of any governmental authority, including without limitation any international, foreign, national, state, provincial, regional, or local authority, relating to pollution, the protection of human health or safety, the environment, or natural resources, or to use, handling, storage, manufacturing, transportation, treatment, discharge, disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants ("***Environmental Laws***") applicable to such entity, which compliance includes, without limitation, obtaining, maintaining and complying with all permits and authorizations and approvals required by Environmental Laws to conduct their respective businesses, and (ii) has not received notice or otherwise have knowledge of any actual or alleged violation of Environmental Laws, or of any actual or potential liability for or other obligation concerning the presence, disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except in the case of clause (i) or (ii) where such non-compliance, violation, liability, or other obligation could not, in the aggregate, reasonably be expected to have a Material Adverse Effect. Except as described in the most recent Preliminary Prospectus, (x) there are no proceedings that are pending, or known to be contemplated, against the Company under Environmental Laws in which a governmental authority is also a party, other than such proceedings regarding which it is reasonably believed no monetary sanctions of $100,000 or more will be imposed, (y) the Company is not aware of any issues regarding compliance with Environmental Laws, including any pending or proposed Environmental Laws, or liabilities or other obligations under Environmental Laws or concerning hazardous or toxic substances or wastes, pollutants or contaminants, that could reasonably be expected to have a material effect on the capital expenditures, earnings or competitive position of the Company, and (z) the Company does not anticipate material capital expenditures relating to Environmental Laws.

(jj) The Company has filed all federal, state, local and foreign tax returns required to be filed through the date hereof, subject to permitted extensions, and have paid all taxes due, and no tax deficiency has been determined adversely to the Company, nor does the Company have any knowledge of any tax deficiencies that have been, or could reasonably be expected to be asserted against the Company, that could, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(kk) (i) Each "employee benefit plan" (within the meaning of Section 3(3) of the Employee Retirement Security Act of 1974, as amended ("***ERISA***")) for which the Company or any member of its "Controlled Group" (defined as any organization which is a member of a controlled group of corporations within the meaning of Section 414 of the Internal Revenue Code of 1986, as amended (the "***Code***")) would have any liability (each a "Plan") has been maintained in compliance with its terms and with the requirements of all applicable statutes, rules and

regulations including ERISA and the Code; (ii) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan excluding transactions effected pursuant to a statutory or administrative exemption; (iii) with respect to each Plan subject to Title IV of ERISA (A) no "reportable event" (within the meaning of Section 4043(c) of ERISA) has occurred or is reasonably expected to occur, (B) no Plan is or is reasonably expected to be "at risk" status (within the meaning of Section 430 of the Code or Section 303 of ERISA) (C) there has been no filing pursuant to Section 412(c) of the Code or Section 302(c) of ERISA of an application for a waiver of the minimum funding standard with respect to any Plan or the receipt by the Company or any of its ERISA Affiliates from the Pension Benefit Guaranty Corporation or the plan administrator of any notice relating to the intention to terminate any Plan or Plans or to appoint a trustee to administer any Plan, (D) no conditions contained in Section 303(k)(1)(A) of ERISA for imposition of a lien shall have been met with respect to any Plan and (E) neither the Company or any member of its Controlled Group has incurred, or reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guaranty Corporation in the ordinary course and without default) in respect of a Plan (including a "multiemployer plan", within the meaning of Section 4001(c)(3) of ERISA) ("***Multiemployer Plan***"); (iv) no Multiemployer Plan is, or is expected to be, "insolvent" (within the meaning of Section 4245 of ERISA), in "reorganization" (within the meaning of Section 4241 of ERISA), or in "endangered" or "critical" status (within the meaning of Section 432 of the Code or Section 304 of ERISA); (v) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification; and (vi) there is no pending audit or investigation by the Internal Revenue Service, the U.S. Department of Labor, the Pension Benefit Guaranty Corporation or any other governmental agency or any foreign regulatory agency with respect to any Plan.

(ll) The statistical and market-related data included in the most recent Preliminary Prospectus and the financial statements of the Company included in the most recent Preliminary Prospectus are based on or derived from sources that the Company believes to be reliable in all material respects.

(mm) The Company: (i) has been in compliance in all material respects with all applicable healthcare laws, rules and regulations, including, without limitation, (i) the Federal Food, Drug and Cosmetic Act (21 U.S.C. §§ 301 et seq.) (the "***FDCA***") and the regulations promulgated thereunder (ii) within the last five (5) years have not received any Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or notice from any Regulatory Agency or any other governmental authority alleging or asserting noncompliance with any applicable healthcare laws or the terms of any Permit, except in each case as would not, individually or in the aggregate, have a Material Adverse Effect; (iii) have not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority or third party alleging that any product operation or activity is in violation of any applicable healthcare laws or Permit and have no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding, except in each case as would not, individually or in the aggregate, have a Material Adverse Effect; (iv) (a) has filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any applicable healthcare laws or Permits, (b) except as would not,

individually or in the aggregate, have a Material Adverse Effect, all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct and not misleading on the date filed (or were corrected or supplemented by a subsequent submission), and (c) the Company is not aware of any reasonable basis for any material liability with respect to such filings; and (v) have not, and to the knowledge of the

Company, the Company's officers, employees and agents have not, made any untrue statement of a material fact or fraudulent statement to any governmental authority or failed to disclose a material fact required to be disclosed to any governmental authority.

(nn) To the Company's knowledge, the descriptions of and information regarding the studies, tests and trials, and the data and results derived therefrom, contained in the most recent Preliminary Prospectus are accurate and complete in all material respects and the Company, after due inquiry, are not aware of any other studies, tests, trials, presentations, publications or other information relating to the Company's products that are not described in the most recent Preliminary Prospectus and that would reasonably call into question the validity, completeness, or accuracy of any study, test, trial, results or data described in the most recent Preliminary Prospectus when viewed in the context in which such studies, tests, trials results, or data are described therein. The studies, tests and trials conducted by or on behalf of or sponsored by the Company or in which the Company or its product candidates have participated were and, if still pending, are being conducted in all material respect in accordance with standard medical and scientific research procedures and all applicable Laws, including, but not limited to, the FDCA and its applicable implementing regulations at 21 C.F.R. Parts 50, 54, 56, 58 and 312. No investigational new drug application filed by or on behalf of the Company with the FDA has been terminated or suspended by the FDA, and neither the FDA nor any applicable foreign regulatory agency has commenced, or, to the knowledge of the Company, threatened to initiate, any action to place a clinical hold order on, or otherwise terminate, delay or suspend, any proposed or ongoing clinical investigation conducted or proposed to be conducted by or on behalf of the Company.

(oo) The Company is, and as of the applicable Delivery Date and, after giving effect to the offer and sale of the Stock and the application of the proceeds therefrom as described under "Use of Proceeds" in the most recent Preliminary Prospectus and the Prospectus, will not be an "investment company" or a company "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940, as amended (the "***Investment Company Act***"), and the rules and regulations of the Commission thereunder.

(pp) The statements set forth in each of the most recent Preliminary Prospectus and the Prospectus under the captions "Description of Capital Stock", "Material U.S. Federal Income Tax Consequences to Non-U.S. Holders of our Common Stock", and "Underwriting", insofar as they purport to summarize the provisions of the laws and documents referred to therein, are accurate summaries of the provisions of such laws and documents in all material respects.

(qq) Except as described in the most recent Preliminary Prospectus and the Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right (other than rights that have been waived in writing or otherwise satisfied) to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company owned or to be owned by such person or to require the Company to include such securities in the securities registered pursuant to the Registration

Statement or in any securities being registered pursuant to any other registration statement filed by the Company under the Securities Act.

(rr) The Company is not a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against any of them or the Underwriters for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Stock.

(ss) The Company has not sold or issued any securities that would be integrated with the offering of the Stock contemplated by this Agreement pursuant to the Securities Act, the rules and regulations thereunder or the interpretations thereof by the Commission.

(tt) The Company and its affiliates have not taken, directly or indirectly, any action designed to constitute, or that has constituted, or that could reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company in connection with the offering of the shares of the Stock.

(uu) The Stock has been approved for listing, subject to official notice of issuance and evidence of satisfactory distribution on, The Nasdaq Capital Market.

(vv) The Company has not distributed and, prior to the later to occur of any Delivery Date and completion of the distribution of the Stock, will not distribute any offering material in connection with the offering and sale of the Stock other than any Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus to which the Representatives have consented in accordance with Section 1(i) or 5(a)(vi) and any Issuer Free Writing Prospectus set forth on Schedule V hereto.

(ww) The Company is not in violation of or has received notice of any violation with respect to any federal or state law relating to discrimination in the hiring, promotion or pay of employees, nor any applicable federal or state wage and hour laws, nor any state law precluding the denial of credit due to the neighborhood in which a property is situated, the violation of any of which could reasonably be expected to have a Material Adverse Affect.

(xx) The Company, nor, to the knowledge of the Company, after due inquiry, any director, officer, agent, employee or other person associated with or acting on behalf of the Company, has in the course of its actions for, or on behalf of, the Company: (i) made any unlawful contribution, gift, or other unlawful expense relating to political activity; (ii) made any direct or indirect bribe, kickback, rebate, payoff, influence payment, or otherwise unlawfully provided anything of value, to any "foreign official" (as defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended (collectively, the "***FCPA***")) or domestic government official; or (iii) violated or is in violation of any provision of the FCPA, the Bribery Act 2010 of the United Kingdom, as amended (the "***Bribery Act 2010***"), or any other applicable anti-bribery statute or regulation. The Company and, to the knowledge of the Company, the Company's affiliates, have conducted their respective businesses in compliance with the FCPA, Bribery Act 2010, and all other applicable anti-bribery statutes and regulations, and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to ensure, continued compliance therewith.

(yy) The operations of the Company are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, that have been issued, administered or enforced by any

governmental agency (collectively, the "***Money Laundering Laws***") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(zz) Neither the Company nor, to the knowledge of the Company, after due inquiry, any director, officer, agent, employee or affiliate of the Company is: (i) currently subject to or the target of any sanctions administered or enforced by the Office of Foreign Assets Control of the U.S. Treasury Department ("***OFAC***"), the U.S. Department of State, the United Nations Security Council ("***UNSC***"), the European Union ("***EU***"), Her Majesty's Treasury ("***HMT***"), or other relevant sanctions authority (collectively, "***Sanctions***"); or (ii) located, organized or resident in a country or territory that is the subject or target of Sanctions (including, without limitation, Cuba, Iran, North Korea, Sudan, Syria and Crimea); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any joint venture partner or other person or entity, for the purpose of financing the activities of any person, or in any country or territory, that currently is the subject or target of Sanctions or in any other manner that will result in a violation by any person (including any person participating in the transaction whether as an underwriter, advisor, investor or otherwise) of Sanctions. The Company has not knowingly engaged in for the past five years, are not now knowingly engaged in, and will not engage in, any dealings or transactions with any individual or entity, or in any country or territory, that at the time of the dealing or transaction, is or was the subject or target of Sanctions.

Any certificate signed by any officer of the Company and delivered to the Representatives or counsel for the Underwriters in connection with the offering of the Stock shall be deemed a representation and warranty by the Company, as to matters covered thereby, to each Underwriter.

2. *Purchase of the Stock by the Underwriters.* On the basis of the representations, warranties and covenants contained in, and subject to the terms and conditions of, this Agreement, the Company agrees to sell [·] shares of the Firm Stock to the several Underwriters, and each of the Underwriters, severally and not jointly, agrees to purchase the number of shares of the Firm Stock set forth opposite that Underwriter's name in Schedule I hereto. The respective purchase obligations of the Underwriters with respect to the Firm Stock shall be rounded among the Underwriters to avoid fractional shares, as the Representatives may determine.

In addition, the Company grants to the Underwriters an option to purchase up to [·] additional shares of Option Stock. Such option is exercisable in the event that the Underwriters sell more shares of Common Stock than the number of shares of Firm Stock in the offering and as set forth in Section 5 hereof. Each Underwriter agrees, severally and not jointly, to purchase the number of shares of Option Stock (subject to such adjustments to eliminate fractional shares as the Representatives may determine) that bears the same proportion to the total number of shares of Option Stock to be sold on such Delivery Date as the number of shares of Firm Stock set forth in

Schedule I hereto opposite the name of such Underwriter bears to the total number of shares of Firm Stock.

The purchase price payable by the Underwriters for both the Firm Stock and any Option Stock is $[·] per share.

The Company is not obligated to deliver any of the Firm Stock or Option Stock to be delivered on the applicable Delivery Date, except upon payment for all such Stock to be purchased on such Delivery Date as provided herein.

3. *Offering of Stock by the Underwriters*. Upon authorization by the Representatives of the release of the Firm Stock, the several Underwriters propose to offer the Firm Stock for sale upon the terms and conditions to be set forth in the

4. *Delivery of and Payment for the Stock.* Delivery of and payment for the Firm Stock shall be made at 10:00 A.M., New York City time, on the second full business day following the date of this Agreement or at such other date or place as shall be determined by agreement between the Representatives and the Company. This date and time are sometimes referred to as the "***Initial Delivery Date***". Delivery of the Firm Stock shall be made to the Representatives for the account of each Underwriter against payment by the several Underwriters through the Representatives and of the respective aggregate purchase prices of the Firm Stock being sold by the Company to or upon the order of the Company of the purchase price by wire transfer in immediately available funds to the accounts specified by the Company. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligation of each Underwriter hereunder. The Company shall deliver the Firm Stock through the facilities of The Depository Trust Company ("***DTC***") unless the Representatives shall otherwise instruct. The option granted in Section 2 will expire 30 days after the date of this Agreement and may be exercised in whole or from time to time in part by written notice being given to the Company by the Representatives; provided that if such date falls on a day that is not a business day, the option granted in Section 2 will expire on the next succeeding business day. Such notice shall set forth the aggregate number of shares of Option Stock as to which the option is being exercised, the names in which the shares of Option Stock are to be registered, the denominations in which the shares of Option Stock are to be issued and the date and time, as determined by the Representatives, when the shares of Option Stock are to be delivered; provided, however, that this date and time shall not be earlier than the Initial Delivery Date nor earlier than the second business day after the date on which the option shall have been exercised nor later than the fifth business day after the date on which the option shall have been exercised. Each date and time the shares of Option Stock are delivered is sometimes referred to as an "**Option Stock Delivery Date**", and the Initial Delivery Date and any Option Stock Delivery Date are sometimes each referred to as a "**Delivery Date**".

Delivery of the Option Stock by the Company and payment for the Option Stock by the several Underwriters through the Representatives shall be made at 10:00 A.M., New York City time, on the date specified in the corresponding notice described in the preceding paragraph or at such other date or place as shall be determined by agreement between the Representatives and the Company. On each Option Stock Delivery Date, the Company shall deliver, or cause to be delivered, the Option Stock, to the Representatives for the account of each Underwriter, against

payment by the several Underwriters through the Representatives and of the respective aggregate purchase prices of the Option Stock being sold by the Company of the purchase price by wire transfer in immediately available funds to the accounts specified by the Company. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligation of each Underwriter hereunder. The Company shall deliver the Option Stock through the facilities of DTC unless the Representatives shall otherwise instruct.

5. *Further Agreements of the Company and the Underwriters*. (a) The Company agrees:

(i) To prepare the Prospectus in a form approved by the Representatives and to file such Prospectus pursuant to Rule 424(b) under the Securities Act not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement; to make no further amendment or any supplement to the Registration Statement or the Prospectus prior to the last Delivery Date except as provided herein; to advise the Representatives, promptly after it receives notice thereof, of the time when any amendment or supplement to the Registration Statement or the Prospectus has been filed and to furnish the Representatives with copies thereof; to advise the Representatives, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of the Prospectus or any Issuer Free Writing Prospectus, of the suspension of the qualification of the Stock for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding or examination for any such purpose or of any request by the Commission for the amending or supplementing of the Registration Statement, the Prospectus or any Issuer Free Writing Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of the Prospectus or any Issuer Free Writing Prospectus or suspending any such qualification, to use promptly its best efforts to obtain its withdrawal.

(ii) To furnish promptly to each of the Representatives and to counsel for the Underwriters a signed copy of the Registration Statement as originally filed with the Commission, and each amendment thereto filed with the Commission, including all consents and exhibits filed therewith.

(iii) To deliver promptly to the Representatives such number of the following documents as the Representatives shall reasonably request: (A) conformed copies of the Registration Statement as originally filed with the Commission and each amendment thereto (in each case excluding exhibits other than this Agreement and the computation of per share earnings), (B) each Preliminary Prospectus, the Prospectus and any amended or supplemented Prospectus, and (C) each Issuer Free Writing Prospectus; and, if the delivery of a prospectus is required at any time after the date hereof in connection with the offering or sale of the Stock or any other securities relating thereto and if at such time any events shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus is delivered, not misleading, or, if for any other reason it shall be necessary to amend or supplement the Prospectus in order to comply

with the Securities Act, to notify the Representatives and, upon their request, to file such document and to prepare and furnish without charge to each Underwriter and to any dealer in securities as many copies as the Representatives may from time to time reasonably request of an amended or supplemented Prospectus that will correct such statement or omission or effect such compliance.

(iv) To file as promptly as practicable with the Commission any amendment or supplement to the Registration Statement or the Prospectus that may, in the judgment of the Company or the Representatives, be required by the Securities Act or requested by the Commission.

(v) Prior to filing with the Commission any amendment or supplement to the Registration Statement or the Prospectus, to furnish a copy thereof to the Representatives and counsel for the Underwriters and obtain the consent of the Representatives to the filing.

(vi) Not to make any offer relating to the Stock that would constitute an Issuer Free Writing Prospectus without the prior written consent of the Representatives.

(vii) To comply with all applicable requirements of Rule 433 under the Securities Act with respect to any Issuer Free Writing Prospectus. If at any time after the date hereof any events shall have occurred as a result of which any Issuer Free Writing Prospectus, as then amended or supplemented, would conflict with the information in the Registration Statement, the most recent Preliminary Prospectus or the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or, if for any other reason it shall be necessary to amend or supplement any Issuer Free Writing Prospectus, to notify the Representatives and, upon their request, to file such document and to prepare and furnish without charge to each Underwriter as many copies as the Representatives may from time to time reasonably request of an amended or supplemented Issuer Free Writing Prospectus that will correct such conflict, statement or omission or effect such compliance.

(viii) As soon as practicable after the Effective Date (it being understood that the Company shall have until at least 410 days or, if the fourth quarter following the fiscal quarter that includes the Effective Date is the last fiscal quarter of the Company's fiscal year, 455 days after the end of the Company's current fiscal quarter), to make generally available to the Company's security holders and to deliver to the Representatives (or make available through the Commission's EDGAR System) an earnings statement of the Company and its subsidiaries (which need not be audited) complying with Section 11(a) of the Securities Act and the rules and regulations thereunder (including, at the option of the Company, Rule 158 under the Securities Act, provided that such requirement shall be deemed met by the Company's compliance with its reporting requirements pursuant to the Exchange Act if such compliance satisfied the conditions of Rule 158 and the Company's reports pursuant to the Exchange Act are available on the Commission's EDGAR System).

(ix) Promptly from time to time to take such action as the Representatives may reasonably request to qualify the Stock for offering and sale under the securities or Blue

Sky laws of Canada and such other jurisdictions as the Representatives may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Stock; *provided*, that in connection therewith the Company shall not be required to (A) qualify as a foreign corporation in any jurisdiction in which it would not otherwise be required to so qualify, (B) file a general consent to service of process in any such jurisdiction, or (C) subject itself to taxation in any jurisdiction in which it would not otherwise be subject.

(x) For a period commencing on the date hereof and ending on the 180th day after the date of the Prospectus (the "***Lock-Up Period***"), not to, directly or indirectly, (A) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or

could be expected to, result in the disposition by any person at any time in the future of) any shares of Common Stock or securities convertible into or exercisable or exchangeable for Common Stock (other than the Stock and shares issued pursuant to employee benefit plans, qualified stock option plans or other employee compensation plans existing on the date hereof or pursuant to currently outstanding options, warrants or rights not issued under one of those plans), or sell or grant options, rights or warrants with respect to any shares of Common Stock or securities convertible into or exchangeable for Common Stock (other than the grant of options pursuant to option plans existing on the date hereof), (B) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of such shares of Common Stock, whether any such transaction described in clause (A) or (B) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise, (C) file or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of Common Stock or securities convertible, exercisable or exchangeable into Common Stock or any other securities of the Company (other than any registration statement on Form S-8), or (D) publicly disclose the intention to do any of the foregoing, in each case without the prior written consent of the Representatives, on behalf of the Underwriters, and to cause each officer, director and stockholder of the Company set forth on Schedule II hereto to furnish to the Representatives, prior to the Initial Delivery Date, a letter or letters, substantially in the form of Exhibit A hereto (the "***Lock-Up Agreements***").

(xi) If the Representatives, in their sole discretion, agrees to release or waive the restrictions set forth in a Lock-Up Agreement for an officer or director of the Company and provides the Company with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by issuing a press release substantially in the form of Exhibit B hereto, and containing such other information as Barclays Capital Inc. may require with respect to the circumstances of the release or waiver and/or the identity of the officer(s) and/or director(s) with respect to which the release or waiver applies, through a major news service at least two business days before the effective date of the release or waiver.

(xii) To apply the net proceeds from the sale of the Stock being sold by the Company substantially in accordance with the description as set forth in the Prospectus under the caption "Use of Proceeds."

(xiii) To file with the Commission such information on Form 10-Q or Form 10-K as may be required by Rule 463 under the Securities Act.

(xiv) If the Company elects to rely upon Rule 462(b) under the Securities Act, the Company shall file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) under the Securities Act by 10:00 P.M., Washington, D.C. time, on the date of this Agreement, and the Company shall at the time of filing pay the Commission the filing fee for the Rule 462(b) Registration Statement.

(xv) The Company will promptly notify the Representatives if the Company ceases to be an Emerging Growth Company at any time prior to the later of (A) the time when a prospectus relating to the offering or sale of the Stock or any other securities relating thereto is not required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) and (B) completion of the Lock-Up Period.

(xvi) If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission. The Company will promptly notify the Representatives of (A) any distribution by the Company of Written Testing-the-Waters Communications and (B) any request by the Commission for information concerning the Written Testing-the-Waters Communications.

(xvii) The Company and its affiliates will not take, directly or indirectly, any action designed to or that has constituted or that reasonably would be expected to cause or result in the stabilization or manipulation of the price of any security of the Company in connection with the offering of the Stock.

(xviii) The Company will do and perform all things required or necessary to be done and performed under this Agreement by it prior to each Delivery Date, and to satisfy all conditions precedent to the Underwriters' obligations hereunder to purchase the Stock.

(b) Each Underwriter severally agrees that such Underwriter shall not include any "issuer information" (as defined in Rule 433 under the Securities Act) in any "free writing prospectus" (as defined in Rule 405 under the Securities Act) used or referred to by such Underwriter without the prior consent of the Company (any such issuer information with respect to whose use the Company has given its consent, "***Permitted Issuer Information***"); *provided* that (i) no such consent shall be required with respect to any such issuer information contained in any document filed by the Company with the Commission prior to the use of such free writing prospectus, and (ii) "issuer information", as used in this Section 5(b), shall not be deemed to include information prepared by or on behalf of such Underwriter on the basis of or derived from issuer information.

6. *Expenses.* The Company agrees, whether or not the transactions contemplated by this Agreement are consummated or this Agreement is terminated, to pay all expenses, costs, fees and taxes incident to and in connection with (a) the authorization, issuance, sale and delivery of the Stock and any stamp duties or other taxes payable in that connection, and the preparation and printing of certificates for the Stock; (b) the preparation, printing and filing under the Securities Act of the Registration Statement (including any exhibits thereto), any Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, and any amendment or supplement thereto; (c) the distribution of the Registration Statement (including any exhibits thereto), any Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, and any amendment or supplement thereto, all as provided in this Agreement; (d) the production and distribution of this Agreement, any supplemental agreement among Underwriters, and any other related documents in connection with the offering, purchase, sale and delivery of the Stock; (e) the filing fees incidental to the review by FINRA of the terms of sale of the Stock (including reasonable related fees and expenses of counsel to the Underwriters; (f) the listing of the Stock on The Nasdaq Capital Market and/or any other exchange; (g) the qualification of the Stock under the securities laws of the several jurisdictions as provided in Section 5(a)([ix]) and the preparation, printing and distribution of a Blue Sky Memorandum (including reasonable

related fees and expenses of counsel to the Underwriters); (h) the preparation, printing and distribution of one or more versions of the Preliminary Prospectus and the Prospectus for distribution in Canada, including in the form of a Canadian "wrapper" (including reasonable related fees and expenses of Canadian counsel to the Underwriters; (i) the investor presentations on any "road show" or any Testing-the-Waters Communication, undertaken in connection with the marketing of the Stock, including, without limitation, expenses associated with any electronic road show, travel and lodging expenses of the representatives and officers of the Company and the cost of any aircraft chartered in connection with the road show; and (j) all other costs and expenses incident to the performance of the obligations of the Company under this Agreement; *provided* that, in the case of (e), (g) and (h) above, reasonable related fees and expenses of counsel to the Underwriters in an amount that is greater than $[·], in the aggregate, shall not be covered by this Section. Except as provided in this Section 6 and in Section 11, the Underwriters shall pay their own costs and expenses, including the costs and expenses of their counsel, any transfer taxes on the Stock which they may sell and the expenses of advertising any offering of the Stock made by the Underwriters.

7. *Conditions of Underwriters' Obligations*. The respective obligations of the Underwriters hereunder are subject to the accuracy, when made and on each Delivery Date, of the representations and warranties of the Company contained herein, to the performance by the Company of its obligations hereunder, and to each of the following additional terms and conditions:

(a) The Prospectus shall have been timely filed with the Commission in accordance with Section 5(a)(i). The Company shall have complied with all filing requirements applicable to any Issuer Free Writing Prospectus used or referred to after the date hereof; no stop order suspending the effectiveness of the Registration Statement or preventing or suspending the use of the Prospectus or any Issuer Free Writing Prospectus shall have been issued and no proceeding or examination for such purpose shall have been initiated or threatened by the Commission; and any request of the Commission for inclusion of additional information in the Registration Statement or the Prospectus or otherwise shall

have been complied with. If the Company has elected to rely upon Rule 462(b) under the Securities Act, the Rule 462(b) Registration Statement shall have become effective by 10:00 P.M., Washington, D.C. time, on the date of this Agreement.

(b) No Underwriter shall have discovered and disclosed to the Company on or prior to such Delivery Date that the Registration Statement, the Prospectus or the Pricing Disclosure Package, or any amendment or supplement thereto, contains an untrue statement of a fact which, in the opinion of Latham & Watkins, LLP, counsel for the Underwriters, is material or omits to state a fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(c) All corporate proceedings and other legal matters incident to the authorization, form and validity of this Agreement, the Stock, the Registration Statement, the Prospectus and any Issuer Free Writing Prospectus, and all other legal matters relating to this Agreement and the transactions contemplated hereby shall be reasonably satisfactory in all material respects to counsel for the Underwriters, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

(d) Sheppard, Mullin, Richter & Hampton LLP shall have furnished to the Representatives its written opinion, as counsel to the Company, addressed to the Underwriters and dated such Delivery Date, in form and substance reasonably satisfactory to the Representatives, substantially in the form attached hereto as Exhibit C-1.

(e) Cooley LLP shall have furnished to the Representatives its written opinion, as patent counsel to the Company, addressed to the Underwriters and dated such Delivery Date, in form and substance reasonably satisfactory to the Representatives, substantially in the form attached hereto as Exhibit C-2.

(f) The Representatives shall have received from Latham & Watkins LLP, counsel for the Underwriters, such opinion or opinions, dated such Delivery Date, with respect to the issuance and sale of the Stock, the Registration Statement, the Prospectus and the Pricing Disclosure Package and other related matters as the Representatives may reasonably require, and the Company shall have furnished to such counsel such documents as they reasonably request for the purpose of enabling them to pass upon such matters.

(g) At the time of execution of this Agreement, the Representatives shall have received from BDO USA, LLP a letter, in form and substance satisfactory to the Representatives, addressed to the Underwriters and dated the date hereof (i) confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X of the Commission, and (ii) stating, as of the date hereof (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the most recent Preliminary Prospectus, as of a date not more than three days prior to the date hereof), the conclusions and findings of such firm with respect to the financial information and other

matters ordinarily covered by accountants' "comfort letters" to underwriters in connection with registered public offerings.

(h) With respect to the letter of BDO USA, LLP referred to in the preceding paragraph and delivered to the Representatives concurrently with the execution of this Agreement (the "***initial letter***"), the Company shall have furnished to the Representatives a letter (the "***bring-down letter***") of such accountants, addressed to the Underwriters and dated such Delivery Date (i) confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X of the Commission, (ii) stating, as of the date of the bring-down letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Prospectus, as of a date not more than three days prior to the date of the bring-down letter), the conclusions and findings of such firm with respect to the financial information and other matters covered by the initial letter, and (iii) confirming in all material respects the conclusions and findings set forth in the

(i) The Company shall have furnished to the Representatives a certificate, dated such Delivery Date, of its Chief Executive Officer and its Chief Financial Officer as to such matters as the Representatives may reasonably request, including, without limitation, a statement:

(i) That the representations, warranties and agreements of the Company in Section 1 are true and correct on and as of such Delivery Date, and the Company has complied with all its agreements contained herein and satisfied all the conditions on its part to be performed or satisfied hereunder at or prior to such Delivery Date;

(ii) That no stop order suspending the effectiveness of the Registration Statement has been issued; and no proceedings or examination for that purpose have been instituted or, to the knowledge of such officers, threatened;

(iii) That they have examined the Registration Statement, the Prospectus and the Pricing Disclosure Package, and, in their opinion, (A) (1) the Registration Statement, as of the Effective Date, (2) the Prospectus, as of its date and on the applicable Delivery Date, and (3) the Pricing Disclosure Package, as of the Applicable Time, did not and do not contain any untrue statement of a material fact and did not and do not omit to state a material fact required to be stated therein or necessary to make the statements therein (except in the case of the Registration Statement, in the light of the circumstances under which they were made) not misleading, and (B) since the Effective Date, no event has occurred that should have been set forth in a supplement or amendment to the Registration Statement, the Prospectus or any Issuer Free Writing Prospectus that has not been so set forth; and

(iv) To the effect of Section 7(k) (*provided* that no representation with respect to the judgment of the Representatives need be made) and Section 7(k).

(j) Except as described in the most recent Preliminary Prospectus, (i) neither the Company nor any of its subsidiaries shall have sustained, since the date of the latest audited financial statements included in the most recent Preliminary Prospectus, any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, or (ii) since such date there shall not have been any change in the capital stock or long-term debt of the Company or any of its subsidiaries or any change, or any development involving a prospective change, in or affecting the condition (financial or otherwise), results of operations, stockholders' equity, properties, management, business or prospects of the Company and its subsidiaries taken as a whole, the effect of which, in any such case described in clause (i) or (ii), is, individually or in the aggregate, in the judgment of the Representatives, so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Stock being delivered on such Delivery Date on the terms and in the manner contemplated in the Prospectus.

(k) Subsequent to the execution and delivery of this Agreement (i) no downgrading shall have occurred in the rating accorded the Company's debt securities or preferred stock by any "nationally recognized statistical rating organization" (as defined by the Commission in Section 3(a)(62) of the Exchange Act), and (ii) no such organization shall have publicly announced that it has under surveillance or review, with possible negative implications, its rating of any of the Company's debt securities or preferred stock.

(l) Subsequent to the execution and delivery of this Agreement there shall not have occurred any of the following: (i) (A) trading in securities generally on any securities exchange that has registered with the Commission under Section 6 of the Exchange Act (including the New York Stock Exchange, The NASDAQ Global Select Market, The NASDAQ Global Market or The NASDAQ Capital Market), or (B) trading in any securities of the Company on any exchange or in the over-the-counter market, shall have been suspended or materially limited or the settlement of such trading generally shall have been materially disrupted or minimum prices shall have been established on any such exchange or such market by the Commission, by such exchange or by any other regulatory body or governmental authority having jurisdiction, (ii) a general moratorium on commercial banking activities shall have been declared by federal or state authorities, (iii) the United States shall have become engaged in hostilities, there shall have been an escalation in hostilities involving the United States or there shall have been a declaration of a national emergency or war by the United States, or (iv) there shall have occurred such a material adverse change in general economic, political or financial conditions, including, without limitation, as a result of terrorist activities after the date hereof (or the effect of international conditions on the financial markets in the United States shall be such) or any other calamity or crisis either within or outside the United States, as to make it, in the judgment of the Representatives, impracticable or inadvisable to proceed with the public offering or delivery of the Stock being delivered on such Delivery Date on the terms and in the manner contemplated in the Prospectus.

(m) The Nasdaq Capital Market shall have approved the Stock for listing, subject only to official notice of issuance and evidence of satisfactory distribution.

(n) The Lock-Up Agreements between the Representatives and the officers, directors and stockholders of the Company set forth on Schedule II, delivered to the Representatives on or before the date of this Agreement, shall be in full force and effect on such Delivery Date.

(o) On or prior to each Delivery Date, the Company shall have furnished to the Underwriters such further certificates and documents as the Representatives may reasonably request.

All opinions, letters, evidence and certificates mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Underwriters.

8. *Indemnification and Contribution.*

(a) The Company hereby agrees to indemnify and hold harmless each Underwriter, its affiliates, directors, officers and employees and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any loss, claim, damage or liability, joint or several, or any action in respect thereof (including, but not limited to, any loss, claim, damage, liability or action relating to purchases and sales of Stock), to which that Underwriter, affiliate, director, officer, employee or controlling person may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, liability or action arises out of, or is based upon, (i) any untrue statement or alleged untrue statement of a material fact contained in (A) any Preliminary Prospectus, the Registration Statement, the Prospectus or in any amendment or supplement thereto, (B) any Issuer Free Writing Prospectus or in any amendment or supplement thereto,

(C) any Permitted Issuer Information used or referred to in any "free writing prospectus" (as defined in Rule 405 under the Securities Act) used or referred to by any Underwriter, or (D) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Stock, including any "road show" (as defined in Rule 433 under the Securities Act) not constituting an Issuer Free Writing Prospectus and any Written Testing-the-Waters Communication ("***Marketing Materials***"), or (ii) the omission or alleged omission to state in any Preliminary Prospectus, the Registration Statement, the Prospectus, any Issuer Free Writing Prospectus or in any amendment or supplement thereto or in any Permitted Issuer Information, or any Marketing Materials, any material fact required to be stated therein or necessary to make the statements therein not misleading, and shall reimburse each Underwriter and each such affiliate, director, officer, employee or controlling person promptly upon demand for any legal or other expenses reasonably incurred by that Underwriter, affiliate, director, officer, employee or controlling person in connection with investigating or defending or preparing to defend against any such loss, claim, damage, liability or action as such expenses are incurred; *provided*, *however*, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, liability or action arises out of, or is based upon, any untrue statement or alleged untrue statement or omission or alleged omission made in any Preliminary Prospectus, the Registration Statement, the Prospectus, any Issuer Free Writing Prospectus or in any such amendment or supplement thereto or in any Permitted

Issuer Information, or any Marketing Materials, in reliance upon and in conformity with written information concerning such Underwriter furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein, which information consists solely of the information specified in Section 8(e). The foregoing indemnity agreement is in addition to any liability which the Company may otherwise have to any Underwriter or to any affiliate, director, officer, employee or controlling person of that Underwriter.

(b) Each Underwriter, severally and not jointly, shall indemnify and hold harmless the Company, its directors, officers and employees, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any loss, claim, damage or liability, joint or several, or any action in respect thereof, to which the Company or any such director, officer, employee or controlling person may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, liability or action arises out of, or is based upon, (i) any untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement, the Prospectus, any Issuer Free Writing Prospectus or in any amendment or supplement thereto or in any Marketing Materials, or (ii) the omission or alleged omission to state in any Preliminary Prospectus, the Registration Statement, the Prospectus, any Issuer Free Writing Prospectus or in any amendment or supplement thereto or in any Marketing Materials, any material fact required to be stated therein or necessary to make the statements therein not misleading, but in each case only to the extent that the untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon and in conformity with written information concerning such Underwriter furnished to the Company through the Representatives by or on behalf of that Underwriter specifically for inclusion therein, which information is limited to the information set forth in Section 8(e). The foregoing indemnity agreement is in addition to any liability that any Underwriter may otherwise have to the Company or any such director, officer, employee or controlling person.

(c) Promptly after receipt by an indemnified party under this Section 8 of notice of any claim or the commencement of any action, the indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under this Section 8, notify the indemnifying party in writing of the claim or the commencement of that action; *provided*, *however*, that the failure to notify the indemnifying party shall not relieve it from any liability which it may have under this Section 8 except to the extent it has been materially prejudiced (through the forfeiture of substantive rights and defenses) by such failure and, *provided*, *further*, that the failure to notify the indemnifying party shall not relieve it from any liability which it may have to an indemnified party otherwise than under this Section 8. If any such claim or action shall be brought against an indemnified party, and it shall notify the indemnifying party thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it wishes, jointly with any other similarly notified indemnifying party, to assume the defense thereof with counsel reasonably satisfactory to the indemnified party. After notice from the indemnifying party to the indemnified party of its election to assume the defense of such claim or action, the indemnifying party shall not be liable to the indemnified party under this Section 8 for any legal or other expenses subsequently incurred by the indemnified party in connection with

the defense thereof other than reasonable costs of investigation; *provided*, *however*, that the indemnified party shall have the right to employ counsel to represent jointly the indemnified party and those other indemnified parties and their respective directors, officers, employees and controlling persons who may be subject to liability arising out of any claim in respect of which indemnity may be sought under this Section 8 if (i) the indemnified party and the indemnifying party shall have so mutually agreed; (ii) the indemnifying party has failed within a reasonable time to retain counsel reasonably satisfactory to the indemnified party; (iii) the indemnified party and its directors, officers, employees and controlling persons shall have reasonably concluded that there may be legal defenses available to them that are different from or in addition to those available to the indemnifying party; or (iv) the named parties in any such proceeding (including any impleaded parties) include both the indemnified parties or their respective directors, officers, employees or controlling persons, on the one hand, and the indemnifying party, on the other hand, and representation of both sets of parties by the same counsel would be inappropriate due to actual or potential differing interests between them, and in any such event the fees and expenses of such separate counsel shall be paid by the indemnifying party. No indemnifying party shall (x) without the prior written consent of the indemnified parties (which consent shall not be unreasonably withheld), settle or compromise or consent to the entry of any judgment with respect to any pending or threatened claim, action, suit or proceeding in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified parties are actual or potential parties to such claim or action) unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all liability arising out of such claim, action, suit or proceeding and does not include a statement as to, or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party, or (y) be liable for any settlement of any such action effected without its written consent (which consent shall not be unreasonably withheld), but if settled with the consent of the indemnifying party or if there be a final judgment for the plaintiff in any such action, the indemnifying party agrees to indemnify and hold harmless any indemnified party from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by Section 8(a) hereof, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request or disputed in good faith the indemnified party's entitlement to such reimbursement prior to the date of such settlement.

(d) If the indemnification provided for in this Section 8 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 8(a) or 8(b) in respect of any loss, claim, damage or liability, or any action in respect thereof, referred to therein, then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability, or action in respect thereof, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other, from the offering of the Stock, or (ii)

if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions that resulted in such loss, claim, damage or liability, or action in respect thereof, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other, with respect to such offering shall be deemed to be in the same proportion as the total net proceeds from the offering of the Stock purchased under this Agreement (before deducting expenses) received by the Company, as set forth in the table on the cover page of the Prospectus, on the one hand, and the total underwriting discounts and commissions received by the Underwriters with respect to the shares of the Stock purchased under this Agreement, as set forth in the table on the cover page of the Prospectus, on the other hand. The relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 8(d) were to be determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage or liability, or action in respect thereof, referred to above in this Section 8(d) shall be deemed to include, for purposes of this Section 8(d), any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 8(d), in no event shall an Underwriter be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the offering of the Stock exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute as provided in this Section 8(d) are several in proportion to their respective underwriting obligations and not joint.

(e) The Underwriters severally confirm and the Company acknowledges and agrees that the statements regarding delivery of shares by the Underwriters set forth on the cover page of, and the concession and reallowance figures and the paragraph relating to stabilization by the Underwriters appearing under the caption "Underwriting" in, the most recent Preliminary Prospectus and the Prospectus are correct and constitute the only information concerning such Underwriters furnished in writing to the Company by or on behalf of the Underwriters specifically for inclusion in any Preliminary Prospectus, the Registration Statement, the Prospectus, any Issuer Free Writing Prospectus or in any amendment or supplement thereto or in any Marketing Materials.

9. *Defaulting Underwriters*.

(a) If, on any Delivery Date, any Underwriter defaults in its obligations to purchase the Stock that it has agreed to purchase under this Agreement, the remaining non-defaulting Underwriters may in their discretion arrange for the purchase of such Stock by the non-defaulting Underwriters or other persons satisfactory to the Company on the terms contained in this Agreement. If, within 36 hours after any such default by any Underwriter, the non-defaulting Underwriters do not arrange for the purchase of such Stock, then the Company shall be entitled to a further period of 36 hours within which to procure other persons satisfactory to the non-defaulting Underwriters to purchase such Stock on such terms. In the event that within the respective prescribed periods, the non-defaulting Underwriters notify the Company that they have so arranged for the purchase of such Stock, or the Company notifies the non-defaulting Underwriters that it has so arranged for the purchase of such Stock, either the non-defaulting Underwriters or the Company may postpone such Delivery Date for up to seven full business days in order to effect any changes that in the opinion of counsel for the Company or counsel for the Underwriters may be necessary in the Registration Statement, the Prospectus or in any other document or arrangement, and the Company agrees to promptly prepare any amendment or supplement to the Registration Statement, the Prospectus or in any such other document or arrangement that effects any such changes. As used in this Agreement, the term "Underwriter" includes, for all purposes of this Agreement unless the context requires otherwise, any party not listed in Schedule I hereto that, pursuant to this Section 9, purchases Stock that a defaulting Underwriter agreed but failed to purchase.

(b) If, after giving effect to any arrangements for the purchase of the Stock of a defaulting Underwriter or Underwriters by the non-defaulting Underwriters and the Company as provided in paragraph (a) above, the total number of shares of the Stock that remains unpurchased does not exceed one-eleventh of the total number of shares of all the Stock, then the Company shall have the right to require each non-defaulting Underwriter to purchase the total number of shares of Stock that such Underwriter agreed to purchase hereunder plus such Underwriter's pro rata share (based on the total number of shares of Stock that such Underwriter agreed to purchase hereunder) of the Stock of such defaulting Underwriter or Underwriters for which such arrangements have not been made; *provided* that the non-defaulting Underwriters shall not be obligated to purchase more than 110% of the total number of shares of Stock that it agreed to purchase on such Delivery Date pursuant to the terms of Section 2.

(c) If, after giving effect to any arrangements for the purchase of the Stock of a defaulting Underwriter or Underwriters by the non-defaulting Underwriters and the Company as provided in paragraph (a) above, the total number of shares of Stock that remains unpurchased exceeds one-eleventh of the total number of shares of all the Stock, or if the Company shall not exercise the right described in paragraph (b) above, then this Agreement shall terminate without liability on the part of the non-defaulting Underwriters. Any termination of this Agreement pursuant to this Section 9 shall be without liability on the part of the Company, except that the Company will continue to be liable for the payment of expenses as set forth in Sections 6 and 11 and except that the provisions of Section 8 shall not terminate and shall remain in effect.

(d) Nothing contained herein shall relieve a defaulting Underwriter of any liability it may have to the Company or any non-defaulting Underwriter for damages caused by its default.

10. *Termination.* The obligations of the Underwriters hereunder may be terminated by the Representatives by notice given to and received by the Company prior to delivery of and payment for the Firm Stock if, prior to that time, any of the events described in Sections 7(i), 7(j) and 7(k) shall have occurred or if the Underwriters shall decline to purchase the Stock for any reason permitted under this Agreement.

11. *Reimbursement of Underwriters' Expenses.* If (a) the Company shall fail to tender the Stock for delivery to the Underwriters for any reason, or (b) the Underwriters shall decline to purchase the Stock for any reason permitted under this Agreement, the Company will reimburse the Underwriters for all reasonable out-of-pocket expenses (including fees and disbursements of counsel for the Underwriters) incurred by the Underwriters in connection with this Agreement and the proposed purchase of the Stock, and upon demand the Company shall pay the full amount thereof to the Representatives. If this Agreement is terminated pursuant to Section 9 by reason of the default of one or more Underwriters, the Company shall not be obligated to reimburse any defaulting Underwriter on account of those expenses.

12. *Research Analyst Independence.* The Company acknowledges that the Underwriters' research analysts and research departments are required to be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and that such Underwriters' research analysts may hold views and make statements or investment recommendations and/or publish research reports with respect to the Company and/or the offering that differ from the views of their respective investment banking divisions. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Underwriters with respect to any conflict of interest that may arise from the fact that the views expressed by their independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by such Underwriters' investment banking divisions. The Company acknowledges that each of the Underwriters is a full service securities firm and as such from time to time, subject to applicable securities laws, may effect transactions for its own account or the account of its customers and hold long or short positions in debt or equity securities of the companies that may be the subject of the transactions contemplated by this Agreement.

13. *No Fiduciary Duty*. The Company acknowledges and agrees that in connection with this offering, sale of the Stock or any other services the Underwriters may be deemed to be providing hereunder, notwithstanding any preexisting relationship, advisory or otherwise, between the parties or any oral representations or assurances previously or subsequently made by the Underwriters: (a) no fiduciary or agency relationship between the Company and any other person, on the one hand, and the Underwriters, on the other, exists; (b) the Underwriters are not acting as advisors, expert or otherwise, to the Company, including, without limitation, with respect to the determination of the public offering price of the Stock, and such relationship between the Company, on the one hand, and the Underwriters, on the other, is entirely and solely commercial, based on arms-length negotiations; (c) any duties and obligations that the Underwriters may have to the Company shall be limited to those duties and obligations specifically stated herein; and (d)

the Underwriters and their respective affiliates may have interests that differ from those of the Company. The Company hereby waives any claims that the Company may have against the Underwriters with respect to any breach of fiduciary duty in connection with this offering.

14. *Notices, etc.* All statements, requests, notices and agreements hereunder shall be in writing, and:

(a) if to the Underwriters, shall be delivered or sent by mail or facsimile transmission to Barclays Capital Inc., 745 Seventh Avenue, New York, New York 10019, Attention: Syndicate Registration (Fax: (646) 834-8133), with a copy, in the case of any notice pursuant to Section [8(c)], to the Director of Litigation, Office of the General Counsel, Barclays Capital Inc., 745 Seventh Avenue, New York, New York 10019;

(b) if to the Company, shall be delivered or sent by mail or facsimile transmission to the address of the Company set forth in the Registration Statement, Attention: Chief Executive Officer (Email: vmehta@bioxceltherapeutics.com), with a copy to Sheppard, Mullin, Richter & Hampton LLP, 30 Rockefeller Plaza, 39th Floor, New York, New York 10112, Attention: Jeffrey J. Fessler, Esq. (Email: jfessler@sheppardmullin.com) .

Any such statements, requests, notices or agreements shall take effect at the time of receipt thereof.

15. *Persons Entitled to Benefit of Agreement*. This Agreement shall inure to the benefit of and be binding upon the Underwriters, the Company, and their respective successors. This Agreement and the terms and provisions hereof are for the sole benefit of only those persons, except that (a) the representations, warranties, indemnities and agreements of the Company contained in this Agreement shall also be deemed to be for the benefit of the directors, officers and employees of the Underwriters and each person or persons, if any, who control any Underwriter within the meaning of Section 15 of the Securities Act, and (b) the indemnity agreement of the Underwriters contained in Section 8(b) of this Agreement shall be deemed to be for the benefit of the directors of the Company, the officers of the Company who have signed the Registration Statement and any person controlling the Company within the meaning of Section 15 of the Securities Act. Nothing in this Agreement is intended or shall be construed to give any person, other than the persons referred to in this Section 15, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision contained herein.

16. *Survival.* The respective indemnities, representations, warranties and agreements of the Company and the Underwriters contained in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall survive the delivery of and payment for the Stock and shall remain in full force and effect, regardless of any investigation made by or on behalf of any of them or any person controlling any of them.

17. *Definition of the Terms "Business Day", "Affiliate" and "Subsidiary"*. For purposes of this Agreement, (a) "***business day***" means each Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York are generally

authorized or obligated by law or executive order to close, and (b) "***affiliate***" and "***subsidiary***" have the meanings set forth in Rule 405 under the Securities Act.

18. *Governing Law*. **This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to conflict of laws principles (other than Section 5-1401 of the General Obligations Law).**

19. *Waiver of Jury Trial*. The Company and the Underwriters hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

20. *Counterparts.* This Agreement may be executed in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original but all such counterparts shall together constitute one and the same instrument.

21. *Headings.* The headings herein are inserted for convenience of reference only and are not intended to be part of, or to affect the meaning or interpretation of, this Agreement.

If the foregoing correctly sets forth the agreement between the Company and the Underwriters, please indicate your acceptance in the space provided for that purpose below.

Very truly yours,

BIOXCEL THERAPEUTICS, INC.

By: _____
Name:
Title:

Accepted:

BARCLAYS CAPITAL INC.
UBS SECURITIES LLC
BMO CAPITAL MARKETS CORP.,

For themselves and as Representatives
of the several Underwriters named
in Schedule I hereto

By BARCLAYS CAPITAL INC.

By: _____
Authorized Representative

By UBS SECURITIES LLC

By: _____
Authorized Representative

By: _____
Authorized Representative

By BMO CAPITAL MARKETS CORP.

By: _____
Authorized Representative

SCHEDULE I

Underwriters	Number of Shares of Firm Stock
Barclays Capital Inc.	
UBS Securities LLC	
BMO Capital Markets Corp.	
Canaccord Genuity Inc.	
Total	

SCHEDULE II(1)

PERSONS DELIVERING LOCK-UP AGREEMENTS

Directors

Officers

Securityholders

(1) NTD: Individuals and entities to be confirmed. To include all security and option holders.

SCHEDULE III

ORALLY CONVEYED PRICING INFORMATION

1. [·] per share

2. [·] shares of Firm Stock and [·] shares of Option Stock

SCHEDULE IV

ISSUER FREE WRITING PROSPECTUSES — ROAD SHOW MATERIALS

Electronic Road Show.

[·]

SCHEDULE V

ISSUER FREE WRITING PROSPECTUS

[·]

SCHEDULE VI

WRITTEN TESTING-THE-WATERS COMMUNICATIONS

Investor Presentation dated [·]

EXHIBIT A

LOCK-UP LETTER AGREEMENT

EXHIBIT B

Form of Press Release

BioXcel Therapeutics, Inc.
[*Insert date*]

BioXcel Therapeutics, Inc., (the "*Company*") announced today that Barclays Capital Inc., the lead book-running manager in the Company's recent public sale of [·] shares of common stock and UBS Securities LLC and BMO Capital Markets Corp., are [waiving] [releasing] a lock-up restriction with respect to [·] shares of the Company's common stock held by [certain officers or directors] [an officer or director](55) of the Company. The [waiver] [release] will take effect on [*insert date*], and the shares may be sold or otherwise disposed of on or after such date.

This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.

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(55) If Representatives so requests in writing (either in or accompanying the notice to the Company about the impending release or waiver), the Company will include in the press release such other information as the Representatives may require regarding the circumstances of the release or waiver and/or the identity of the officer(s) or director(s) with respect to which the release or waiver applies.

EXHIBIT C-1

FORM OF OPINION OF COMPANY'S COUNSEL

EXHIBIT C-2

FORM OF OPINION OF COMPANY'S INTELLECTUAL PROPERTY COUNSEL

Exhibit 3.1

Delaware
The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF INCORPORATION OF "BIOXCEL THERAPEUTICS, INC.", FILED IN THIS OFFICE ON THE TWENTY-NINTH DAY OF MARCH, A.D. 2017, AT 4:48 O`CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.

/s/ Jeffrey W. Bullock
Jeffrey W. Bullock, Secretary of State

6363738 8100
SR# 20172117681

Authentication: 202300675
Date: 03-30-17

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 04:48 PM 03/29/2017
FILED 04:48 PM 03/29/2017
SR 20172117681 - File Number 6363738

CERTIFICATE OF INCORPORATION

OF

BIOXCEL THERAPEUTICS, INC.

FIRST: The name of the corporation is BioXcel Therapeutics, Inc. (the "***Corporation***").

SECOND: The address of the Corporation's registered office in the State of Delaware is located at 2711 Centerville Road, Suite 400, in the City of Wilmington, County of New Castle, Delaware 19808. The Corporation's registered agent at such address is Corporation Service Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law, as the same may be amended and supplemented from time to time (the "***DGCL***").

FOURTH: The total number of shares of stock that the Corporation shall have authority to issue is One Hundred Thousand (100,000) shares of common stock, par value of $0.001 per share. The powers, preferences and rights, and the qualifications, limitations or restrictions thereof shall be determined by the Corporation's Board of Directors.

FIFTH: The name and address of the incorporator is as follows:

Diane M. Cooper
Wiggin and Dana LLP
265 Church Street
New Haven, CT 06510

SIXTH: The Corporation's Board of Directors shall have the power to adopt, amend or repeal the bylaws of the Corporation.

SEVENTH: Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under Section 291 of the DGCL or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under Section 279 of the DGCL, order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be

binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

EIGHTH: To the fullest extent permitted by law, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL or any other law of the State of Delaware is amended after approval by the stockholders of this Article Eighth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL or any such other law of the State of Delaware as so amended. No amendment to or repeal of this Article Eighth shall adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such amendment or repeal.

NINTH: The Corporation shall, to the fullest extent permitted by Section 145 of the DGCL, indemnify and advance expenses to (a) its directors and officers and (b) any person who at the request of the Corporation is or was serving as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise from and against any and all of the expenses, liabilities or other matters referred to in or covered by said section as amended or supplemented (or any successor); provided, however, that, except with respect to proceedings to enforce rights to indemnification, the Corporation shall not indemnify any director, officer or such person in connection with a proceeding (or part thereof) initiated by such director, officer or such person unless such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation. The Corporation, by action of its Board of Directors, may provide indemnification or advance expenses to employees and agents of the Corporation or other persons only on such terms and conditions and to the extent determined by its Board of Directors in its sole and absolute discretion. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in their official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person. No amendment to or repeal of this Article Ninth shall adversely affect any right or protection of a director, officer or such other indemnified person of the Corporation existing at the time of, or increase the liability of any director, officer or such other indemnified person of the Corporation with respect to any acts or omissions of such director, officer or such other indemnified person occurring prior to, such amendment or repeal.

TENTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (c) any action asserting a claim arising pursuant to any provision of the DGCL or the Corporation's certificate of incorporation or bylaws or (d) any action asserting a claim governed by the internal affairs doctrine.

ELEVENTH: The Corporation hereby renounces, to the fullest extent permitted by Section 122(17) of the DGCL, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any business opportunities that are presented to any of its directors or stockholders who are not otherwise employed by the Corporation other than business opportunities that are presented to any director or stockholder acting in his or her capacity as a director or stockholder of the Corporation. No amendment to or repeal of this Article Eleventh shall adversely affect any right or protection of a director or stockholder of this Corporation existing at the time of, or increase the liability of any director or stockholder of this Corporation with respect to any acts or omissions of such director or stockholder occurring prior to, such amendment or repeal.

I, THE UNDERSIGNED, being the incorporator, for the purpose of forming a corporation under the DGCL, do make, file and record this Certificate of Incorporation, do certify that the facts herein stated are true and, accordingly, have hereto set my hand this 29th day of March, 2017.

/s/ Diane M. Cooper
Diane M. Cooper, Incorporator

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
BIOXCEL THERAPEUTICS, INC.

FIRST: The name of the Corporation is BioXcel Therapeutics, Inc.

SECOND: The address of the Corporation's registered office in the state of Delaware is 2711 Centerville Road, Suite 400, City of Wilmington, County of New Castle, Delaware 19808 The name of the registered agent at such address is Corporation Service Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the Delaware General Corporation Law (the "DGCL").

FOURTH: The total number of shares of capital stock that the Corporation shall have authority to issue is 60,000,000 shares, consisting of 50,000,000 shares of common stock, par value $0.001 per share (the "Common Stock"), and 10,000,000 shares of preferred stock, par value $0.001 per share (the "Preferred Stock").

4.1 Common Stock. A statement of the designations, powers, preferences, rights, qualifications, limitations and restrictions in respect to the shares of Common Stock is as follows:

(a) Dividends. The Board of Directors of the Corporation may cause dividends to be paid to the holders of shares of Common Stock out of funds legally available for the payment of dividends by declaring an amount per share as a dividend. When and as dividends are declared on the Common Stock, whether payable in cash, in property or in shares of stock or other securities of the Corporation, the holders of Common Stock shall be entitled to share ratably according to the number of shares of Common Stock held by them, in such dividends.

(b) Liquidation Rights. Subject to the terms of any resolution or resolutions adopted by the Board of Directors pursuant to Section 4.2 of this ARTICLE FOURTH, in the event of any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation, the holders of Common Stock shall be entitled to share ratably, according to the number of shares of Common Stock held by them, in all remaining assets of the Corporation available for distribution to its stockholders.

(c) Voting Rights. Except as otherwise provided in this Certificate of Incorporation or required by applicable law, the holders of Common Stock shall be entitled to vote on each matter on which the stockholders of the Corporation shall be entitled to vote, and each holder of Common Stock shall be entitled to one vote for each share of such stock held by him. Notwithstanding the foregoing, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Certificate of Incorporation (including any resolution adopted pursuant to Section 4.2 of this ARTICLE FOURTH relating to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon pursuant to this Certificate of Incorporation (including any resolution adopted pursuant to Section 4.2 of this ARTICLE FOURTH relating to any series of Preferred Stock).

4.2 Preferred Stock. The Board of Directors is authorized, subject to any limitation prescribed by law, to adopt one or more resolutions to provide for the issuance of the shares of Preferred Stock in one or more series, and by filing a certificate pursuant to applicable Delaware law to establish from time to time the number of shares to be included in each such series, and to fix the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions thereof. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of all of the then-outstanding shares of capital stock of the Corporation entitled to vote thereon, irrespective of the provisions of Section 242(b)(2) of the DGCL and without a vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the terms of any resolution adopted pursuant to this Section 4.2.

The authority of the Board of Directors with respect to each series shall include, but not be limited to, determination of the following:

(a) The number of shares constituting the series and the distinctive designation of the series;

(b) The dividend rate (or the method of calculation of dividends) on the shares of the series, whether dividends will be cumulative, and if so, from which date or dates, and the relative rights of priority, if any, of payment of dividends on shares of the series;

(c) Whether the series shall have voting rights, in addition to the voting rights required by law, and if so, the terms of such voting rights;

(d) Whether the series shall have conversion rights, and, if so, the terms and conditions of such conversion, including provision for adjustment of the conversion rate in such events as the Board of Directors shall determine;

(e) Whether or not the shares of that series shall be redeemable or exchangeable, and, if so, the terms and conditions of such redemption or exchange, as the case may be, including the date or dates upon or after which they shall be redeemable or exchangeable, as the case may be, and the amount per share payable in case of redemption, which amount may vary under different conditions and at different redemption dates;

(f) Whether the series shall have a sinking fund for the redemption or purchase of shares of that series, and if so, the terms and amount of such sinking fund;

(g) The rights of the shares of the series in the event of voluntary or involuntary liquidation, dissolution or winding up of the Corporation, and the relative rights or priority, if any, of payment of shares of the series; and

(h) Any other relative rights, preferences, powers and limitations of that series.

Except for any difference so provided by the Board of Directors, the shares of Preferred Stock will rank on parity with respect to the payment of dividends and to the distribution of assets upon liquidation.

FIFTH:

5.1 Location for Stockholder Meetings. Meetings of stockholders may be held within or outside the state of Delaware or may be held solely by means of remote communication in accordance with the DGCL.

5.2 Stockholder Action. Except as otherwise provided with respect to a series of Preferred Stock in a resolution or resolutions adopted by the Board of Directors pursuant to ARTICLE FOURTH, any action required or permitted to be taken by the stockholders must be effected at a duly called annual or special meeting of such stockholders, and may not be effected by consent of stockholders in lieu of a meeting of stockholders.

5.3 Special Stockholders Meetings. Except as otherwise required by law, special meetings of the Corporation's stockholders may be called only by (i) the Board of Directors pursuant to a resolution approved by the affirmative vote of a majority of the directors then in office, (ii) the Chairman of the Board, if one is elected, or (iii) the Chief Executive Officer. Only those matters set forth in the notice, of the special meeting may be considered or acted upon at such special meeting, unless otherwise provided by law. Notwithstanding the foregoing, whenever holders of one or more series of Preferred Stock shall have the right, voting separately as a class or series, to elect directors, such holders may call, pursuant to the terms of the resolution or resolutions adopted by the Board of Directors pursuant to ARTICLE FOURTH hereto, special meetings of holders of such Preferred Stock.

SIXTH:

6.1 Number of Directors. The number of directors of the Corporation shall be fixed from time to time by the vote of a majority of the entire Board of Directors, except as may be provided by the resolution or resolutions adopted by the Board of Directors of the Corporation in respect of Preferred Stock adopted pursuant to ARTICLE FOURTH hereto, but such number shall in no case be less than one (1) nor more than fifteen (15). Any such determination made by the Board of Directors shall continue in effect unless and until changed by the Board of Directors, but no such changes shall affect the term of any directors then in office.

6.2 Term of Office; Vacancies. (b) Subject to Section 6.5 hereof, the Board of Directors shall be divided into three classes, as nearly equal in number as possible and designated Class I, Class II and Class III. The Board is authorized to assign members of the Board already in office to Class I, Class II and Class III. The term of the initial Class I Directors shall expire at the first annual meeting of the stockholders of the Corporation following the effectiveness of this Amended and Restated Certificate of Incorporation, the term of the initial Class II Directors shall expire at the second annual meeting of the stockholders of the Corporation following the effectiveness of this Amended and Restated Certificate of Incorporation and the term of the initial Class III Directors shall expire at the third annual meeting of the stockholders of the Corporation following the effectiveness of this Amended and Restated Certificate of Incorporation. At each succeeding annual meeting of the stockholders of the Corporation, beginning with the first annual meeting of the stockholders of the Corporation following the effectiveness of this Amended and Restated Certificate of Incorporation, each of the successors elected to replace the class of directors whose term expires at that annual meeting shall be elected for a three-year term or until the election and qualification of their respective successors in office, subject to their earlier death, resignation or removal. Subject to Section 6.5 hereof, if the number of directors that constitutes the Board of Directors is changed, any increase or decrease shall be apportioned by the Board of Directors among the classes so as to maintain the number of directors in each class as nearly equal as possible, but in no case shall a decrease in the number of directors constituting the Board of Directors shorten the term of any incumbent director. Subject to the rights of the holders of one or more series of Preferred

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Stock, voting separately by class or series, to elect directors pursuant to the terms of one or more series of Preferred Stock, the election of directors shall be determined by a plurality of the votes cast by the stockholders present in person or represented by proxy at the meeting and entitled to vote thereon. The Board of Directors is hereby expressly authorized, by resolution or resolutions thereof, to assign members of the Board of Directors already in office to the aforesaid classes at the time this Amended and Restated Certificate of Incorporation (and therefore such classification) becomes effective in accordance with the DGCL. Any vacancies and newly created directorships resulting from an increase in the number of directors shall be filled exclusively by a majority of the directors then in office, even if less than a quorum, and shall hold office until the next stockholder's meeting at which directors are elected and his successor is elected and qualified or until his earlier death, resignation, retirement, disqualification or removal from office.

6.3 Removal. Subject to Section 6.5 hereof, any or all of the directors may be removed from office at any time, but only for cause and only by the affirmative vote of holders of a majority of the voting power of all then-outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

6.4 No Written Ballot. Election of directors need not be by written ballot, unless the By-laws of the Corporation provide otherwise.

6.5 Preferred Stock Directors. Notwithstanding the foregoing, whenever the holders of one or more series of Preferred Stock shall have the right, voting separately as a class or series, to elect directors, the election, term of office, filling of vacancies, removal and other features of such directorships shall be governed by the terms of the resolution or resolutions adopted by the Board of Directors pursuant to ARTICLE FOURTH applicable thereto, and each director so elected shall not be subject to the provisions of this ARTICLE SIXTH unless otherwise provided therein.

SEVENTH: For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation and of its directors and of its stockholders or any class thereof, as the case may be, it is further provided:

(1) The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.

(2) The Board of Directors shall have the power to make, alter, amend, change, add to or repeal the By-laws of the Corporation.

(3) In addition to the powers and authority hereinbefore or by statute expressly conferred upon them, the directors are hereby empowered to exercise all such powers and do all such acts and things as maybe exercised or done by the Corporation; subject, nevertheless, to the provisions of the DGCL or this Certificate of Incorporation.

(4) Any action permitted or required to be taken by the Board of Directors pursuant to this Certificate of Incorporation may be taken by an authorized committee thereof, except as expressly prohibited by the DGCL or the By-laws.

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

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knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended. Any repeal or modification of this paragraph shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification.

NINTH: The Corporation reserves the right to repeal, alter or amend this Certificate of Incorporation in the manner now or hereafter prescribed by statute.

TENTH: Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under Section 291 of the DGCL or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under Section 279 of the DGCL, order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be

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binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

ELEVENTH: The Corporation shall, to the fullest extent permitted by Section 145 of the DGCL, indemnify and advance expenses to (a) its directors and officers and (b) any person who at the request of the Corporation is or was serving as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise from and against any and all of the expenses, liabilities or other matters referred to in or covered by said section as amended or supplemented (or any successor); provided, however, that, except with respect to proceedings to enforce rights to indemnification, the Corporation shall not indemnify any director, officer or such person in connection with a proceeding (or part thereof) initiated by such director, officer or such person unless such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation. The Corporation, by action of its Board of Directors, may provide indemnification or advance expenses to employees and agents of the Corporation or other persons only on such terms and conditions and to the extent determined by its Board of Directors in its sole and absolute discretion. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in their official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person. No amendment to or repeal of this Article Ninth shall adversely affect any right or protection of a director, officer or such other indemnified person of the Corporation existing at the time of, or increase the liability of any director, officer or such other indemnified person of the Corporation with respect to any acts or omissions of such director, officer or such other indemnified person occurring prior to, such amendment or repeal.

TWELFTH: The Corporation hereby renounces, to the fullest extent permitted by Section 122(17) of the DGCL, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any business opportunities that are presented to any of its directors or stockholders who are not otherwise employed by the Corporation other than business opportunities that are presented to any director or stockholder acting in his or her capacity as a director or stockholder of the Corporation. No amendment to or repeal of this Article Eleventh shall adversely affect any right or protection of a director or stockholder of this Corporation existing at the time of, or increase the liability of any director or stockholder of this Corporation with respect to any acts or omissions of such director or stockholder occurring prior to, such amendment or repeal.

THIRTEENTH: Unless the Corporation consents in writing to the selection of an alternative forum, to the fullest extent permitted by law, all Internal Corporate Claims shall be brought solely and exclusively in the Court of Chancery of the State of Delaware (or, if such court does not have jurisdiction, the Superior Court of the State of Delaware, or, if such other court does not have jurisdiction, the United States District Court for the District of Delaware). "Internal Corporate Claims" means claims, including claims in the right of the Corporation, brought by a stockholder (including a beneficial owner) (i) that are based upon a violation of a

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duty by a current or former director or officer or stockholder in such capacity or (ii) as to which the DGCL confers jurisdiction upon the Court of Chancery of the State of Delaware.

[Signature Page Follows]

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed on this day of , 2018.

By: _____

Name: Vimal Mehta
Title: Chief Executive Officer

Exhibit 3.3

BYLAWS
OF
BIOXCEL THERAPEUTICS, INC.
(the "*Corporation*")

ARTICLE I
Offices

Section 1. Principal Office. The address of the principal office of the Corporation shall be the address of its principal place of business from time to time.

Section 2. Other Offices. The Corporation may also have other offices at such places within or without the State of Delaware as the Board of Directors of the Corporation (the "***Board***") may designate from time to time determine.

ARTICLE II
Meetings of Shareholders

Section 1. Annual Meeting. The annual meeting of shareholders, for the purpose of electing the Board and for the transaction of any other business relating to the affairs of the Corporation which may come before the meeting, shall be held annually on such date and at such time as shall be designated by the Board or, in the absence of action by the Board, by the President.

Section 2. Special Meetings. Special meetings of shareholders may be called at any time by the Board, the Chairman of the Board or the President of the Corporation (the "***President***") or, in the absence or disability of the President, by a Vice President of the Corporation. Upon the written request of not less than one-tenth (1/10) of the voting power of all shares entitled to vote at the meeting, the President shall call a special shareholders' meeting for the purposes specified in such request and cause notice thereof to be given. If the President shall not, within fifteen (15) days after the receipt of such request, so call such meeting, such shareholders may call the same.

Section 3. Notice of Meeting. Written notice of the place, date and time of all meetings of the shareholders shall be given, not less than ten (10) nor more than sixty (60) days before the date on which the meeting is to be held, to each shareholder entitled to vote at such meeting, except as otherwise provided herein or required by the Delaware General Corporation Law (the "***Act***") or the Corporation's Certificate of Incorporation (the "***Certificate of Incorporation***"). Any such notice shall be addressed to such shareholder at his or her last known address as the same appears in the records of the Corporation. Any such notice may be given by a form of electronic transmission consented to by the shareholder to whom the notice is given.

When a meeting is adjourned to another place, date or time, written notice need not be given of the adjourned meeting if the place, date and time thereof are announced at the meeting at which the adjournment is taken; provided, however, that if the date of any adjourned meeting is more than one-hundred twenty (120) days after the date fixed for the original meeting, written notice of the place, date and time of the adjourned meeting shall be given in conformity

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herewith. At any adjourned meeting, any business may be transacted which might have been transacted at the original meeting.

Section 4. Place of Meetings. Each annual or special meeting of shareholders shall be held at such place within or without the State of Delaware as the Board or, in the absence of action by the Board, the President may designate. In the absence of such designation with respect to any such meeting, it shall be held at the principal office of the Corporation.

Section 5. Quorum. Unless the Certificate of Incorporation or the Act provide otherwise, a majority of the votes entitled to be cast on any matter constitutes a quorum with respect to such matter. Where a separate vote by a class or classes is required, a majority of the votes entitled to be cast on any matter by such class or classes constitutes a quorum with respect to such matter.

If a quorum shall fail to attend any meeting, the chairman of the meeting or the holders of a majority of the shares of stock entitled to vote who are present, in person or by proxy, may adjourn the meeting to another place, date or time.

Section 6. Voting. Except as provided in the Act or unless the Certificate of Incorporation provides otherwise, each outstanding share, regardless of class, is entitled to one vote on each matter voted on at a shareholders' meeting.

When a quorum is present at any duly held meeting of shareholders, the affirmative vote of the holders of a majority of the voting power of the shares entitled to vote on the subject matter, present in person or by proxy, shall be the act of the shareholders, except where otherwise provided by the Act, the Certificate of Incorporation, these Bylaws or an effective written agreement among the Corporation's shareholders holding a sufficient percentage of outstanding stock, or an applicable class or series outstanding stock, of the Corporation (a "***Shareholders' Agreement***").

Every shareholder entitled to vote may do so in person or by proxy.

Section 7. Organization. The Chairman of the Board or, in his or her absence, such person as the Board may have designated or, in his or her absence, the President or, in his or her absence, such person as may be chosen by the holders of a majority of the shares entitled to vote who are present, in person or by proxy, shall call to order any meeting of the shareholders and act as chairman of the meeting. In the absence of the Secretary of the Corporation (the "***Secretary***"), the secretary of the meeting shall be such person as the chairman of the meeting appoints. The chairman of any meeting of shareholders shall determine the order of business and the procedures at the meeting, including such regulation of the manner of voting and the conduct of discussion as he or she deems to be appropriate.

Section 8. Action Without Meeting. Any action required to be taken at any annual or special meeting of shareholders, or any action which may be taken at any annual or special meeting of such shareholders, may be taken without a meeting, without prior notice and without a vote, if a consent or consents

in writing, setting forth the action so taken shall be (a) signed and dated by the holders of outstanding stock, or by their duly authorized attorneys, having not less than the minimum number of votes that would be necessary to authorize or take such action at a

meeting at which all shares entitled to vote thereon were present and voted and (b) delivered to the Corporation to its registered office in the State of Delaware (in which case delivery shall be by hand or by certified or registered mail, return receipt requested), its principal place of business or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of shareholders are recorded within sixty (60) days of the earliest date on which a consent delivered to the Corporation as required above was signed. Consent may be given by the holders of outstanding stock or their duly authorized attorneys by electronic transmission. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those shareholders who have not consented in writing. Such consent shall be filed in the corporate minute book and shall have the same effect as a unanimous vote at a shareholders' meeting.

ARTICLE III
Directors

Section 1. General Powers. The business, property and affairs of the Corporation shall be managed by the Board, which may exercise all the powers of the Corporation except such as are by the Act, the Certificate of Incorporation, these Bylaws or a Shareholders' Agreement expressly conferred on or reserved to the shareholders.

Section 2. Number, Election, Tenure and Qualification. Except as otherwise specified in the Certificate of Incorporation or a Shareholders' Agreement, the number of Directors which shall constitute the whole Board shall be determined by resolution of the Board or by the shareholders at the annual meeting or at any special meeting of shareholders. The Directors shall be elected at the annual meeting or at any special meeting of the shareholders, except as provided in Section 5 of this Article, and each Director elected shall hold office until his or her successor is elected and qualified, unless sooner displaced. Directors need not be shareholders.

Section 3. Resignation of Directors. If no time is specified, the resignation of a Director shall be effective immediately upon its receipt by the Corporation at its principal place of business or by the President or Secretary, or at such later time as may be specified in the resignation. In the case of a resignation to take effect at a date later than the receipt thereof by the Corporation, appropriate action to elect a successor to take office when the resignation becomes effective may be taken at any time after such receipt, but the new Director may not take office until the resignation is effective.

Section 4. Removal of Directors. Subject to any contrary provisions in a Shareholders' Agreement, at any special meeting of shareholders called for that purpose any Director may be removed from office with or without cause at any time, regardless of the term for which he or she had been elected, by the affirmative vote of the holders of a majority of the voting power of all shares then having the right to vote for the election of Directors.

Section 5. Vacancies. Subject to any contrary provisions in a Shareholders' Agreement, in case of any vacancy in the Board by reason of death, resignation, removal or failure of the shareholders to elect as many Directors as the number of directorships fixed by them, or otherwise,

the remaining Directors, though less than a quorum, by the concurring vote of a majority of such remaining Directors may elect a successor to hold office until his or her successor has been elected.

Section 6. Regular and Special Meetings. Regular meetings of the Board may be held at such time and places within or without the State of Delaware as the Board may determine.

Special meetings of the Board may be called by the President, and shall be called upon the written request of any Director. Each special meeting shall be held at such time and place within or without the State of Delaware as shall be designated in the notice thereof.

Section 7. Notice of Meetings. Regular meetings of the Board may be held without notice of the date, time, place or purpose of the meeting. Notice of the date, time, place and purpose of each special meeting of the Board shall be given to each Director by whom it is not waived by mailing written notice not less than five (5) days before the meeting or orally, by telegraph, telex, cable, telecopy or other electronic transmission given not less than twenty-four (24) hours before the meeting. Unless otherwise indicated in the notice thereof, any and all business may be transacted at any such special meeting.

Section 8. Quorum. A majority of the fixed number of Directors shall constitute a quorum for the transaction of business. The affirmative vote of a majority of the Directors present at any meeting at which a quorum is present shall be the action of the Board, unless the action of a greater number is required by the Act, the Certificate of Incorporation, any Shareholders' Agreement or any other agreement between the Corporation and its shareholders. In the absence of a quorum, a majority of the Directors present at any meeting may adjourn the meeting from time to time without further notice until a quorum shall be present.

Section 9. Action Without Meeting. Any action required or permitted by the Act to be taken by the Board or any committee thereof may be taken without a meeting if each Director or member of such committee consents thereto in writing or by electronic transmission. The Secretary shall file such consent or consents with the minutes of the meetings of the Board.

Section 10. Participation in Meetings By Conference Telephone. Members of the Board, or any committee thereof, may participate in a meeting of the Board or committee of the Board by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other and such participation shall constitute presence in person at such meeting.

Section 11. Conduct of Business. At any meeting of the Board or any committee thereof, business shall be transacted in such order and manner as the Board or such committee may from time to time determine.

Section 12. Compensation of Directors. Directors, as such, may receive, pursuant to a resolution of the Board, fixed fees and other compensation for their services as Directors, including, without limitation, their services as members of committees of the Board.

Section 13. Committees of the Board. Subject to any contrary provisions in a Shareholders' Agreement, the Board may from time to time designate committees of the Board, with such lawfully delegable powers and duties as it thereby confers, to serve at the pleasure of the Board and shall, for those committees and any others provided for herein, elect a Director or Directors to serve as the member or members, designating, if it desires, other Directors as alternate members who may replace any absent or disqualified member at any meeting of the committee. Except as otherwise provided by the Act, any such committee, to the extent provided in the resolution of the Board, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize any seal of the Corporation to be affixed to all papers which may require it. Subject to any contrary provisions in a Shareholders' Agreement, in the absence or disqualification of any member of any committee and any alternate member in his or her place, the member or members of the committee present at the meeting and not disqualified from voting, whether or not he or she or they constitute a quorum, may by unanimous vote appoint another member of the Board to act at the meeting in the place of the absent or disqualified member. Adequate provision shall be made for notice to committee members of all meetings; a majority of the committee members shall constitute a quorum; and all matters shall be determined by a majority vote of the members present.

ARTICLE IV
Officers, Agents and Attorneys

Section 1. Officers. The officers of the Corporation shall be a President and Secretary, both of whom shall be elected by the Board. The Board may also elect or may authorize the appointment of such additional officers, including but not limited to a Chief Executive Officer, a Chairman of the Board, a Treasurer, one or more Vice Presidents, Assistant Secretaries and Assistant Treasurers as in its judgment may be necessary or advisable. Any two or more offices may be held by the same person. The election or appointment of an officer for a given term shall not of itself create contract rights. Each officer elected or appointed by the Board shall hold office until his or her successor is elected or appointed and qualified, or until he or she dies, resigns, is removed or becomes disqualified, unless a shorter term is specified in the vote electing or appointing said officer.

Section 2. Powers and Duties of Officers. The officers of the Corporation shall have such powers and duties as provided by these Bylaws and as the shareholders or the Board may from time to time confer and designate.

Section 3. Resignation of Officers. If no time is specified, the resignation of an officer shall be effective immediately upon its receipt by the Corporation at its principal place of business, or at such later time as may be specified in the resignation. In the case of a resignation to take effect at a date later than the receipt thereof by the Corporation, appropriate action to elect a successor to take office when the resignation becomes effective may be taken at any time after such receipt, but the successor may not take office until the resignation is effective.

Section 4. Removal of Officers. Officers may be removed from office, with or without cause at any time, by the affirmative vote of the Board, but without prejudice to their contract rights, if any.

Section 5. Vacancies. All vacancies among the officers from whatsoever cause may be filled by the Board.

Section 6. Agents and Attorneys. The Board may appoint such agents and attorneys with such powers and to perform such acts and duties on behalf of the Corporation as the Board may determine.

ARTICLE V
Shares and Shareholders

Section 1. Certificates. Every shareholder shall be entitled to a certificate or certificates certifying the number and class of shares owned by him, her or it in the Corporation. Each such certificate may be under seal, or facsimile seal, of the Corporation and shall be signed, which signature may be by facsimile, by the President or a Vice President, and by the Secretary or an Assistant Secretary or the Treasurer or Assistant Treasurer.

Section 2. Transfers. Except as otherwise provided by law, the Certificate of Incorporation or in a Shareholders' Agreement, shares shall be transferable on the records of the Corporation by the holder of record thereof, or by his, her or its attorney thereunto duly authorized, upon the surrender and cancellation of a certificate or certificates for a like number of shares of the same class with such proof of the authenticity of the signature of such holder or of such attorney and such proof of the authority of such attorney as the Corporation or its transfer agent, transfer clerk or registrar may reasonably require.

Section 3. Holders of Record. The Corporation shall be entitled to treat the holder of record of any share or shares as the owner and holder thereof in fact, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it has actual or other notice thereof, except as and to the extent otherwise provided by the Act.

Section 4. Record Date. The Board by resolution may fix a date as the record date for the purpose of determining the shareholders entitled to notice of and to vote at any meeting of shareholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution, or for any other purpose, such date in any case to be not less than ten (10) nor more than sixty (60) days before the meeting or action requiring a determination of shareholders. If no record date is so fixed, the date on which notice of a meeting is mailed shall be the record date for the determination of shareholders entitled to notice of and to vote at such meeting and the date on which the resolution of the Board declaring such dividend or other distribution is adopted shall be the record date for the determination of shareholders entitled to receive payment of such dividend or other distribution. Shareholders actually of record at a record date shall be the only shareholders entitled to receive notice of or to vote at the meeting, or receive the dividend or other distribution, or otherwise participate in respect of the event or transaction, to which such date relates, except as otherwise provided by law. A determination of shareholders of record entitled to notice of or to vote at a meeting of shareholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

Section 5. Lost Certificates. If a share certificate is lost or destroyed, another may be issued in its stead upon proof of such loss or destruction, upon the giving of a bond of indemnity satisfactory to the Corporation, unless these requirements are dispensed with by the Board, and upon compliance with such other conditions as the Board may reasonably require.

ARTICLE VI
Liability and Indemnification

Section 1. Liability. To the fullest extent permitted by law, no Director shall be personally liable to the Corporation or its shareholders for monetary damages for breach of fiduciary duty as a Director. If the Act or any other law of the State of Delaware is amended after approval by the shareholders of this Article to authorize corporate action further eliminating or limiting the personal liability of Directors, then the liability of a Director shall be eliminated or limited to the fullest extent permitted by the Act or any such other law of the State of Delaware as so amended. No amendment to or repeal of this Article shall adversely affect any right or protection of a Director existing at the time of, or increase the liability of any Director with respect to any acts or omissions of such Director occurring prior to, such amendment or repeal.

Section 2. Indemnification. The Corporation shall, to the fullest extent permitted by Section 145 of the Act, indemnify and advance expenses to (a) its Directors and officers and (b) any person who at the request of the Corporation is or was serving as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise from and against any and all of the expenses, liabilities or other matters referred to in or covered by said section as amended or supplemented (or any successor); provided, however, that, except with respect to proceedings to enforce rights to indemnification, the Corporation shall not indemnify any director, officer or such person in connection with a proceeding (or part thereof) initiated by such director, officer or such person unless such proceeding (or part thereof) was authorized by the Board. The Corporation, by action of the Board, may provide indemnification or advance expenses to employees and agents of the Corporation or other persons only on such terms and conditions and to the extent determined by the Board in its sole and absolute discretion. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any bylaw, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in their official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 3. Insurance. The Board may authorize, by a vote of the majority of the full Board, the Corporation to purchase and maintain insurance on behalf of any person who is or was a Director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of this Article.

ARTICLE VII
Transactions with Interested Parties

No contract or transaction between the Corporation and one (1) or more of its Directors or officers, or between the Corporation and any other corporation, partnership, association or other organization in which one or more of its Directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the Director or officer is present at or participates in the meeting of the Board or committee thereof which authorizes the contract or transaction, or solely because the votes of such Director or officer are counted for such purpose, if:

(a) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the Board or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum;

(b) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the shareholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the shareholders; or

(c) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified by the Board, a committee thereof or the shareholders.

Interested Directors may be counted in determining the presence of a quorum at a meeting of the Board or of a committee which authorizes the contract or transaction.

ARTICLE VIII
Miscellaneous

Section 1. Fiscal Year. Except as otherwise determined by the Board from time to time, the fiscal year of the Corporation shall begin on the first day of January in each year and shall end on the last day of December in each year.

Section 2. Waiver of Notice. Whenever any notice of time, place, purpose or any other matter, including any special notice or form of notice, is required or permitted to be given to any person by the Act, the Certificate of Incorporation, these Bylaws or a resolution of shareholders or Directors, a written waiver of notice signed by the person or persons entitled to such notice, or a waiver of notice by electronic transmission by the person or persons entitled to such notice, whether before or after the time stated therein, shall be equivalent to the giving of such notice. The Secretary shall cause any such waiver to be filed with or entered upon the records of the Corporation or, in the case of a waiver of notice of a meeting, the records of the meeting. The attendance of any person at a meeting without protesting, prior to or at the commencement of the meeting, the lack of proper notice shall be deemed to be a waiver by such person of notice of such.

ARTICLE IX
Amendments

Except as otherwise provided by the Act or a Shareholders' Agreement, these Bylaws may be amended, repealed or added to at any meeting or by written consent of the shareholders or the Board, by the affirmative vote or written consent of the holders of a majority of the voting power of shares entitled to vote thereon or a majority of the directorships.

BioXcel Therapeutics, Inc.

Incorporated under the laws of the State of Delaware

AMENDED AND RESTATED

BY-LAWS

[, 2018]

AMENDED AND RESTATED

BY-LAWS

of

BioXcel Therapeutics, Inc.

PREAMBLE

These Amended and Restated By-laws are subject to, and governed by, the Delaware General Corporation Law (the "DGCL") and the Amended and Restated Certificate of Incorporation of BioXcel Therapeutics, Inc., a Delaware corporation (the "Corporation") (the "Certificate"). In the event of a direct conflict between the provisions of these By-laws and the mandatory provisions of the DGCL or the provisions of the Certificate, such provisions of the DGCL or the Certificate, as the case may be, will be controlling.

ARTICLE 1
Offices

SECTION 1.1 Office

The registered office of the Corporation in the State of Delaware shall be at the location determined from time to time by the Corporation's Board of Directors (the "Board"), and the registered agent in charge thereof shall be as determined by the Board.

SECTION 1.2 Other Offices

The Corporation may also have an office or offices at any other place or places within or outside the State of Delaware.

ARTICLE 2
Meetings of Stockholders

SECTION 2.1 Annual Meetings

The annual meeting of the stockholders for the election of directors, and for the transaction of such other business as may properly come before the meeting, shall be held at such place (if any), date and hour as shall be fixed by the Board, within or without the State of Delaware, and designated in the notice or waiver of notice thereof.

SECTION 2.2 Special Meetings

Except as otherwise required by law, special meetings of the stockholders may be called only in accordance with the provisions of the Certificate.

SECTION 2.3 Notice of Meetings

Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Unless otherwise required by the Certificate or applicable law, the written notice of any meeting shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting. If mailed, notice is given when deposited in the

United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation. An affidavit of the Secretary or an Assistant Secretary or of the transfer agent or other agent of the Corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein. When a meeting is adjourned to another time or place, unless these By-laws otherwise require, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting the Corporation may transact any business which might have been transacted at the original meeting.

SECTION 2.4 Quorum

At each meeting of the stockholders, except where otherwise provided by the Certificate, these By-laws, or as otherwise required by law, the holders of at least one-third of the voting power of the issued and outstanding shares of stock of the Corporation entitled to vote at such meeting, present in person or represented by proxy, shall constitute a quorum for the transaction of business. Where a separate vote by a class or classes or series is required, the holders of at least one-third of the voting power of the issued and outstanding shares of such class or classes or series, present in person or by proxy, shall constitute a quorum entitled to take action with respect to the vote on such matter. When a quorum is present or represented at any meeting, the affirmative vote of a majority of the votes cast affirmatively or negatively on a matter submitted for stockholder action shall decide such matter unless the matter is one upon which, by express provision of law, the Certificate, these By-laws or, with respect to a class or series of Preferred Stock, the terms of the resolution or resolutions adopted by the Board pursuant to ARTICLE FOURTH of the Certificate, a different vote is required, in which case such express provision shall govern and control the decision of such matter. If after the adjournment a new record date for stockholders entitled to vote is fixed for the adjourned meeting, the Board shall fix a new record date for notice of such adjourned meeting in accordance with Section 213(a) of the DGCL, and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting.

SECTION 2.5 Organization

At each meeting of the stockholders, one of the following shall act as chairman of the meeting and preside thereat, in the following order of precedence:

(a) the Chairman;

(b) the Chief Executive Officer;

(c) any Vice President;

(d) any officer of the Corporation designated by the Board to act as chairman of such meeting and to preside thereat; or

(e) a stockholder of record who shall be chosen chairman of such meeting by the holders of a majority in voting power of the stock held by the stockholders present in person or by proxy and entitled to vote thereat.

The Secretary or, if he shall be presiding over such meeting in accordance with the provisions of this Section 5 or if he shall be absent from such meeting, the person (who shall be an Assistant Secretary, if an Assistant Secretary has been appointed and is present) whom the chairman of such meeting shall appoint, shall act as secretary of such meeting and keep the minutes thereof.

SECTION 2.6 Order of Business

Each of the chairman of the meeting and the Board shall have the authority to adopt and enforce rules providing for the orderly conduct of a stockholder meeting and the safety of those in attendance, including without limitation the authority to: (i) determine when the polls will open and close on items submitted for stockholder action; (ii) fix the time allotted for consideration of each agenda item and for questions and comments by persons in

attendance; (iii) adopt rules for determining who may pose questions and comments during the meeting; (iv) adopt rules for determining who may attend the meeting; and (v) adopt procedures (if any) requiring attendees to provide the Corporation advance notice of their intent to attend the meeting. The chairman of the meeting may adjourn or recess any meeting of stockholders, whether pursuant to these By-laws or otherwise, and notice of such adjournment or recess need be given only if required by law.

SECTION 2.7 Voting

Except as may otherwise be required by law or these By-laws, stockholders shall have the voting rights specified in the Certificate.

SECTION 2.8 Action by Stockholders

Any action required or permitted to be taken by the stockholders must be effected at a duly called annual or special meeting of such stockholders and may not be effected by consent of stockholders in lieu of a meeting of stockholders.

SECTION 2.9 Voting Procedures and Inspection of Elections

(a) The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his ability.

(b) The inspectors shall (i) ascertain the number of shares outstanding and the voting power of each, (ii) determine the shares represented at a meeting and the validity of proxies and ballots, (iii) count all votes and ballots, (iv) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors, and (v) certify their determination of the number of shares represented at the meeting, and their count of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of the duties of the inspectors.

(c) The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting. No ballot, proxies or votes, nor any revocations thereof or changes thereto, shall be accepted by the inspectors after the closing of the polls unless Court of Chancery of the State of Delaware, upon application by a stockholder, shall determine otherwise.

(d) In determining the validity and counting of proxies and ballots, the inspectors shall be limited to an examination of the proxies, any envelopes submitted with those proxies, any information provided in accordance with Section 211(e) or Section 212(c)(2) of the DGCL, or any information provided pursuant to Section 211(a)(2)b.(i) or (iii) of the DGCL, ballots and the regular books and records of the Corporation, except that the inspectors may consider other reliable information for the limited purpose of reconciling proxies and ballots submitted by or on behalf of banks, brokers, their nominees or similar persons which represent more votes than the holder of a proxy is authorized by the record owner to cast or more votes than the stockholder holds of record. If the inspectors consider other reliable information for the limited purpose permitted in this Section 9, the inspectors at the time they make their certification pursuant to subsection (b)(v) of this Section 9 shall specify the precise information considered by them including the person or persons from whom they obtained the information, when the information was obtained, the means by which the information was obtained and the basis for the inspectors' belief that such information is accurate and reliable.

SECTION 2.10 Advance Notification of Proposals at Stockholders' Meetings

(a) Annual Meeting.

(i) Nominations of persons for election to the Board and the proposal of business other than nominations to be considered by the stockholders may be made at an annual meeting of stockholders only (A) pursuant to, and in accordance with, the Corporation's notice of meeting (or any supplement thereto), (B) by or at the direction of the Board or any authorized committee thereof or (C) by any stockholder of the Corporation who is a stockholder of record at the time the notice provided for in this Section 10 is delivered to the Secretary, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 10(a). For the avoidance of doubt, the foregoing clause (C) shall be the exclusive means for a stockholder to make director nominations or propose other business (other than a proposal included in the Corporation's proxy materials pursuant to and in compliance with Rule 14a-8 promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), at an annual meeting of stockholders.

(ii) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (C) of the foregoing paragraph, the stockholder must have given timely notice thereof in writing to the Secretary and, in the case of business other than nominations, such business must be a proper subject for stockholder action and the stockholder and the beneficial owner, if any, on whose behalf any such proposal or nomination is made, must have acted in accordance with the representations set forth in the Solicitation Statement required by these By-laws. To be timely under this Section 10(a), a stockholder's notice must be delivered to the Secretary at the principal executive offices of the Corporation not later than the Close of Business (as defined below) on the 90th day nor earlier than the Close of Business on the 120th day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date, or if no annual meeting was held in the preceding year, notice by the stockholder to be timely must be so delivered not earlier than the Close of Business on the 120th day prior to such annual meeting and not later than the Close of Business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which Public Announcement (as defined in Section 10(c)(ii) below) of the date of such meeting is first made by the Corporation. In no event shall an adjournment or recess of an annual meeting, or a postponement of an annual meeting for which notice has been given or with respect to which there has been a Public Announcement of the date of the meeting, commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth:

(A) as to each person whom the stockholder proposes to nominate for election or reelection to the Board (1) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to and in accordance with Regulation 14A under the Exchange Act, and (2) the information required to be submitted by nominees pursuant to Section 11 of this Article II;

(B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend these By-laws, the language of the proposed amendment), the reasons for conducting such business at the meeting and any substantial interest (within the meaning of Item 5 of Exchange Act Schedule 14A) in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made;

(C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination is made or the other business is proposed:

(1) the name and address of such stockholder, as they appear on the Corporation's books, and the name and address of such beneficial owner,

(2) the number of shares of Common Stock and any series of Preferred Stock which are owned of record by such stockholder and such beneficial owner as of the date of the notice, and a representation that the stockholder will notify the Corporation in writing within five business days after the record date for such meeting of the number of shares of Common Stock and any series of Preferred Stock owned of record by the stockholder and such beneficial owner as of the record date for the meeting (except as otherwise provided in Section 10(a)(iii) below), and

(3) a representation that the stockholder intends to appear in person or by proxy at the meeting to make such nomination or propose such business;

(D) as to the stockholder giving the notice or, if the notice is given on behalf of a beneficial owner on whose behalf the nomination is made or the other business is proposed, as to such beneficial owner, and if such stockholder or beneficial owner is an entity, as to each director, executive, managing member or control person of such entity (any such individual or control person, a "Control Person"):

(1) the number of shares of Common Stock and any series of Preferred Stock which are Beneficially Owned (as defined in Section 10(c)(ii) below) by such stockholder or beneficial owner and by any Control Person as of the date of the notice, and the stockholder's agreement to notify the Corporation in writing within five business days after the record date for such meeting of the number of shares of Common Stock and any series of Preferred Stock Beneficially Owned by such stockholder or beneficial owner and by any Control Person as of the record date for the meeting (except as otherwise provided in Section 10(a)(iii) below),

(2) a description of any agreement, arrangement or understanding with respect to the nomination or other business between or among such stockholder, beneficial owner or Control Person and any other person, including without limitation any agreements that would be required to be disclosed pursuant to Item 5 or Item 6 of Exchange Act Schedule 13D (regardless of whether the requirement to file a Schedule 13D is applicable) and the stockholder's agreement to notify the Corporation in writing within five business days after the record date for such meeting of any such agreement, arrangement or understanding in effect as of the record date for the meeting (except as otherwise provided in Section 10(a)(iii) below),

(3) a description of any agreement, arrangement or understanding (including without limitation any derivative or short positions, profit interests, options, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such stockholder, beneficial owner or Control Person, the effect or intent of which is to mitigate loss, manage risk or benefit from changes in the share price of the Common Stock or any series of Preferred Stock, or maintain, increase or decrease the voting power of the stockholder, beneficial owner or Control Person with respect to any Common Stock or any series of Preferred Stock, and the stockholder's agreement to notify the Corporation in writing within five business days after the record date for such meeting of any such agreement, arrangement or understanding in effect as of the record date for the meeting (except as otherwise provided in Section 10(a)(iii) below),

(4) a representation whether the stockholder or the beneficial owner, if any, will engage in a solicitation within the meaning of Exchange Act Rule 14a-1(l) with respect to the nomination or other business and, if so, the name of each participant (as defined in Item 4 of Exchange Act Schedule 14A) in such solicitation and whether such person intends or is part of a group which intends to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Common Stock or any series of Preferred Stock required to approve or adopt the business to be proposed (in person or by proxy) by the stockholder (a "Solicitation Statement").

(iii) Notwithstanding anything in Section 10(a)(ii) above or Section 10(b) below to the contrary, if the record date for determining the stockholders entitled to vote at any meeting of stockholders is different from the record date for determining the stockholders entitled to notice of the meeting, a stockholder's notice required by this Section 10 shall set forth a representation that the stockholder will notify the Corporation in writing within five business days after the record date for determining the stockholders entitled to vote at the meeting, or by the business day immediately preceding the date of the annual meeting (whichever is earlier), of the information required under clauses (ii)(C)(2) and (ii)(D)(1)-(3) of this Section 10(a), and such information when provided to the Corporation shall be current as of the record date for determining the stockholders entitled to vote at the meeting.

(b) Special Meeting.

Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations of persons for election to the Board may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (i) by or at the direction of the Board or any authorized committee thereof or (ii) provided that one or more directors are to be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time the notice provided for in this Section 10(b) is delivered to the Secretary, who is entitled to vote at the meeting and upon such election and who delivers a written notice setting forth the information required by Section 10(a) above. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors, any stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the Corporation's notice of meeting, if the notice required by this Section 10(b) shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the Close of Business on the 120th day prior to such special meeting and not later than the Close of Business on the later of the 90th day prior to such special meeting or the 10th day following the day on which Public Announcement is first made of the date of the special meeting and of the nominees proposed by the Board to be elected at such meeting. In no event shall an adjournment, recess or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(c) General.

(i) Except as otherwise required by law, only such persons who are nominated in accordance with the procedures set forth in Section 10(a)(i) and Section 10(b) above shall be eligible to be elected at any meeting of stockholders of the Corporation to serve as directors and only such other business shall be conducted at an annual meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in Section 10(a)(i) above. Except as otherwise required by law, each of the Board or the chairman of the meeting shall have the power to determine whether a nomination or any other business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in this Section 10. If any proposed nomination or other business is not in compliance, then, except as otherwise required by law, the chairman of the meeting shall have the power to declare that such nomination shall be disregarded or that such other business shall not be transacted. Notwithstanding the foregoing provisions of this Section 10, unless otherwise required by law or otherwise determined by the chairman of the meeting or the Board, if the stockholder does not provide the information required under clauses (a)(ii)(C)(2) and (a)(ii)(D)(1)-(3) of this Section 10 to the Corporation within the time frames specified herein, or if the stockholder (or a Qualified Representative of the stockholder (as defined below)) does not appear at the annual or special meeting of stockholders of the Corporation to present a nomination or other business, such nomination shall be disregarded and such other business shall not be

transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 10, to be considered a "Qualified Representative" of a stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or authorized by a writing executed by such stockholder (or a reliable reproduction or electronic transmission of the writing) delivered to the Corporation prior to the making of such nomination or proposal at such meeting by such stockholder stating that such person is authorized to act for such stockholder as proxy at the meeting of stockholders.

(ii) For purposes of this Section 10, the "Close of Business" shall mean 6:00 p.m. local time at the principal executive offices of the Corporation on any calendar day, whether or not the day is a business day, and a "Public Announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the Corporation with the SEC pursuant to Sections 13, 14 or 15(d) of the Exchange Act. For purposes of clause (a)(ii)(D)(1) of this Section 10, shares shall be treated as "Beneficially Owned" by a person if the person beneficially owns such shares, directly or indirectly, within the meaning of Exchange Act Rule 13d-3, or has or shares pursuant to any agreement, arrangement or understanding (whether or not in writing): (A) the right to acquire such shares (whether such right is exercisable immediately or only after the passage of time or the fulfillment of a condition or both), (B) the right to vote such shares, alone or in concert with others and/or (C) investment power with respect to such shares, including the power to dispose of, or to direct the disposition of, such shares.

(iii) For purposes of this Section 10, the 2017 annual meeting of the stockholders of the Corporation shall be deemed to have been held on December 7, 2017.

SECTION 2.11 Submission of Information by Director Nominees.

(a) To be eligible to be a nominee for election or re-election as a director of the Corporation, a person must deliver to the Secretary at the principal executive offices of the Corporation the following information:

(i) a written representation and agreement, which shall be signed by such person and pursuant to which such person shall represent and agree that such person: (A) consents to serving as a director if elected and (if applicable) to being named in the Corporation's proxy statement and form of proxy as a nominee, and currently intends to serve as a director for the full term for which such person is standing for election; (B) is not and will not become a party to any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity: (1) as to how the person, if elected as a director, will act or vote on any issue or question that has not been disclosed to the Corporation; or (2) that could limit or interfere with the person's ability to comply, if elected as a director, with such person's fiduciary duties under applicable law; (C) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director or nominee that has not been disclosed to the Corporation; and (D) if elected as a director, will comply with all of the Corporation's corporate governance, conflict of interest, confidentiality, and stock ownership and trading policies and guidelines, and any other Corporation policies and guidelines applicable to directors (which will be provided to such person promptly following a request therefor); and

(ii) all completed and signed questionnaires required of the Corporation's directors (which will be provided to such person promptly following a request therefor).

(b) A nominee for election or re-election as a director of the Corporation shall also provide to the Corporation such other information as it may reasonably request. The Corporation may request such additional information as necessary to permit the Corporation to determine the eligibility of such person to serve as a director of the Corporation, including information relevant to a determination whether such person can be considered an independent director.

(c) Notwithstanding any other provision of these By-laws, if a stockholder has submitted notice of an intent to nominate a candidate for election or re-election as a director pursuant to Section 10 of this Article II, the questionnaires described in Section 11(a)(ii) above and the additional information described in Section 11(b) above shall be considered timely if provided to the Corporation promptly upon request by the Corporation , but in any event within five business days after such request, and all information provided pursuant to this Section 11 shall be deemed part of the stockholder's notice submitted pursuant to Section 10 of this Article II.

SECTION 2.12 Advisory Stockholder Votes

In order for the stockholders to adopt or approve any precatory proposal submitted to them for the purpose of requesting the Board to take certain actions, a majority of the outstanding stock of the Corporation entitled to vote thereon must be voted in favor of the proposal.

SECTION 2.13 List of Stockholders

The Corporation shall prepare, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting; provided, however, if the record date for determining the stockholders entitled to vote is less than 10 days before the meeting date, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Nothing contained in this Section 12 shall require the Corporation to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder for any purpose germane to the meeting for a period of at least 10 days prior to the meeting: (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours,

at the principal place of business of the Corporation. In the event that the Corporation determines to make the list available on an electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation. If the meeting is to be held at a place, then a list of stockholders entitled to vote at the meeting shall be produced and kept at the time and place of the meeting during the whole time thereof and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then such list shall also be

open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

ARTICLE 3
Board of Directors

SECTION 3.1 General Powers

The business, property and affairs of the Corporation shall be managed by or under the direction of the Board, which may exercise all such powers of the Corporation and do all such lawful acts and things as are not by law or by the Certificate directed or required to be exercised or done by the stockholders.

SECTION 3.2 Number and Term of Office

The number of directors shall be fixed in accordance with the Certificate. Directors need not be stockholders. Each director shall hold office until his successor is elected and qualified, or until his earlier death, resignation, retirement, disqualification or removal in the manner hereinafter provided. No decrease in the number of directors shall have the effect of shortening the term of any incumbent director.

SECTION 3.3 Election of Directors

At each meeting of the stockholders for the election of directors at which a quorum is present, the persons receiving the greatest number of votes, up to the number of directors to be elected, of the stockholders present in person or by proxy and entitled to vote thereon, shall be the directors; provided that for purposes of such vote no stockholder shall be allowed to cumulate his votes.

SECTION 3.4 Resignation and Vacancies

Any director may resign at any time by giving written notice (or notice by electronic transmission) to the Board, the Chairman, the Chief Executive Officer or the Secretary. Such resignation shall take effect at the time specified therein (which may be upon the happening of an event or events specified therein) or, if the time be not specified, upon delivery thereof; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Except as otherwise required by law, vacancies on the Board and newly created directorships will be filled in accordance with the Certificate.

SECTION 3.5 Meetings

(a) **Regular Meetings**. As soon as practicable after each annual election of directors, the Board shall meet for the purpose of organization and the transaction of other business, unless it shall have transacted all such business by written consent pursuant to Section 6 of this Article III.

(b) **Special Meetings**. Other meetings of the Board shall be held at such times and places as the Board, the Chairman, the Chief Executive Officer or any two directors shall from time to time determine.

(c) **Notice of Meetings**. Notice shall be given to each director for each regular and special meeting, including the time and place of such meeting. Unless otherwise indicated in the notice thereof, any and all business may be transacted at a meeting. Notice of each such meeting shall be mailed to each director, addressed to him at

his residence or usual place of business, at least two days before the date on which such meeting is to be held, or shall be sent to him at such place by telegraph, cable, wireless or other form of recorded communication or by electronic transmission, or be delivered personally or by telephone not later than the day before the day on which such meeting is to be held.

(d) **Place of Meetings**. The Board may hold its meetings at such place or places (if any) within or outside the State of Delaware as the Board may from time to time determine, or as shall be designated in the respective notices or waivers of notice thereof.

(e) **Quorum and Manner of Acting**. Directors comprising a majority of the total number of authorized directorships shall constitute a quorum for the transaction of business. All matters shall be determined by the affirmative vote of a majority of the directors present at a meeting at which a quorum is present. In the absence of a quorum for any such meeting, a majority of the directors present thereat may adjourn such meeting from time to time until a quorum shall be present and no further notice thereof need be given.

(f) **Organization**. At each meeting of the Board, one of the following shall act as chairman of the meeting and preside thereat, in the following order of precedence:

(1) the Chairman;

(2) the Chief Executive Officer (if a director); or

(3) a person designated by the Board.

The Secretary or, in the case of his absence, any person (who shall be an Assistant Secretary, if an Assistant Secretary has been appointed and is present) whom the chairman of the meeting shall appoint shall act as secretary of such meeting and keep the minutes thereof.

SECTION 3.6 Directors' Consent in Lieu of Meeting

Unless otherwise restricted by the Certificate or these By-laws, any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing, or by electronic

transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board, or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. Any person (whether or not then a director) may provide, whether through instruction to an agent or otherwise, that a consent to action will be effective at a future time (including a time determined upon the happening of an event), no later than 60 days after such instruction is given or such provision is made and such consent shall be deemed to have been given for purposes of this subsection at such effective time so long as such person is then a director and did not revoke the consent prior to such time. Any such consent shall be revocable prior to its becoming effective.

SECTION 3.7 Action by Means of Conference Telephone or Similar Communications Equipment

Any one or more members of the Board or any committee thereof, may participate in a meeting of such Board or committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

SECTION 3.8 Committees

(a) The Board may designate one or more committees, each such committee to consist of one or more directors. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not

such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. The Board at any time may change the membership of any committee or amend or rescind the resolution designating the committee. Each committee shall keep a record of proceedings and report the same to the Board to such extent and in such form as the Board may require. Unless otherwise provided in the resolution designating a committee, a majority of all of the members of any such committee may select its Chairman, fix its rules or procedure, fix the time and place of its meetings and specify what notice of meetings, if any, shall be given. Any such committee, to the extent provided in the resolution of the Board, or in these By-laws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to the following matter: (i) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval or (ii) adopting, amending or repealing any by-law of the Corporation.

(b) A majority of the directors then serving on a committee of the Board shall constitute a quorum for the transaction of business by the committee, unless the Certificate or a resolution of the Board requires a greater or lesser number, provided that in no case shall a quorum be less than 1/3 of the directors then serving on the committee. The vote of the majority of the members of a committee present at a meeting at which a quorum is present shall be the act of the committee, unless the Certificate or a resolution of the Board requires a greater number.

SECTION 3.9 Compensation

The Board shall have the authority to fix the compensation of directors, which may include their expenses, if any, of attendance at each meeting of the Board or of a committee.

SECTION 3.10 Preferred Stock Directors

Notwithstanding the foregoing, whenever the holders of one or more series of Preferred Stock shall have the right, voting separately as a class or series, to elect directors, the election, term of office, filling of vacancies, removal and other features of such directorships shall be governed by the terms of the resolution or resolutions adopted by the Board pursuant to ARTICLE FOURTH of the Certificate applicable thereto, and each director so elected shall not be subject to the provisions of this ARTICLE III unless otherwise provided therein.

ARTICLE 4
Officers

SECTION 4.1 Executive Officers

The executive officers of the Corporation shall be determined by the Board and may include a Chairman, a Chief Executive Officer, a Chief Executive Officer, Senior Vice Presidents, Vice Presidents, a Secretary and a Treasurer, and also may include such other officers as the Board may appoint pursuant to Section 3 of this Article IV. Any two or more offices may be held by the same person.

SECTION 4.2 Authority and Duties

All officers, as between themselves and the Corporation, shall have such authority and perform such duties in the management of the Corporation as may be provided in these By-laws or, to the extent so provided, by the Board.

SECTION 4.3 Other Officers

The Corporation may have such other officers, agents and employees as the Board may deem necessary, including one or more Assistant Secretaries, one or more Assistant Treasurers and one or more Vice Presidents, each of whom shall hold office for such period, have such authority, and perform such duties as the Board, the Chairman,

or the Chief Executive Officer may from time to time determine. The Board may delegate to any executive officer the power to appoint and define the authority and duties of, or remove, any such officers, agents or employees.

SECTION 4.4 Term of Office, Resignation and Removal

All executive officers shall be elected or appointed by the Board and shall hold office for such term as may be prescribed by the Board. Each executive officer shall hold office until his successor has been elected or appointed and qualified or until his earlier death or resignation or removal in the manner hereinafter provided. The Board may require any executive officer to give security for the faithful performance of his duties.

Any officer may resign at any time by delivering written notice (or notice by electronic transmission) to the Board, the Chairman, the Chief Executive Officer or the Secretary. Such resignation shall take effect at the time specified therein (which may be upon the happening of an event or events specified therein) or, if the time be not specified, at the time notice is given. Except as aforesaid, the acceptance of such resignation shall not be necessary to make it effective.

All officers and agents elected or appointed by the Board shall be subject to removal at any time by the Board with or without cause, subject to any agreements to the contrary.

SECTION 4.5 Vacancies

If the office of Chairman, Chief Executive Officer, Secretary or Treasurer becomes vacant for any reason, the Board shall fill such vacancy, and if any other office becomes vacant, the Board may fill such vacancy. Except as otherwise provided in these By-laws, any officer so appointed or elected by the Board shall serve only until such time as the unexpired term of his predecessor shall have expired and until his successor shall have been duly elected and qualified, unless reelected or reappointed by the Board.

SECTION 4.6 The Chairman

The Chairman of the Board shall perform such duties as shall be assigned to him by the Board from time to time.

SECTION 4.7 The Chief Executive Officer

In the event that the office of Chairman is or becomes vacant, the chief executive officer of the Corporation shall act as Chairman. The Chief Executive Officer shall have general charge and supervision of the operation of the business and affairs of the Corporation. The Chief Executive Officer may authorize, execute and deliver, for and on behalf of the Corporation, deeds, mortgages, bonds, contracts, or other instruments, except when the signing and execution thereof have been expressly delegated by the Board or by these By-laws to some other officer or agent of the Corporation or are required by law to be otherwise signed or executed by some other officer or in some other manner. He shall from time to time make such reports of the affairs of the Corporation as the Board may require and shall perform all other duties incident to the office of Chief Executive Officer and such other duties as may from time to time be assigned to him by the Board or the Chairman.

SECTION 4.8 Senior Vice President or Vice President

In the event of the death of the Chief Executive Officer or his or her inability to act, the Senior Vice President or Vice President, if any (or if there is more than one Senior Vice President or Vice President, the Senior Vice President or Vice President who was designated by the Board as the successor to the Chief Executive Officer, or if no Senior Vice President or Vice President is so designated, the Senior Vice President first elected to such office or if there is no Senior Vice President, the Vice President first elected to such office) shall perform the duties of the Chief Executive Officer, except as may be limited by resolution of the Board, with all the powers of and subject to all the restrictions upon the Chief Executive Officer. Senior Vice Presidents or Vice Presidents shall have, to the extent authorized by the Chief Executive Officer or the Board, the same powers as the Chief Executive Officer to authorize, execute and deliver, for and on behalf of the Corporation, deeds, mortgages, bonds, contracts,

or other instruments. Senior Vice President or Vice Presidents shall perform all other duties incident to the office of Senior Vice President or Vice President and such other duties as from time to time may be assigned to them by the Chief Executive Officer or by the Board. The Board may name any Senior Vice President or Vice President as the Chief Operating Officer, Chief Financial Officer or similar title.

SECTION 4.9 The Secretary

The Secretary shall, to the extent practicable, attend all meetings of the Board and all meetings of the stockholders and shall record, or cause to be recorded, the minutes of all proceedings in a book to be kept for that purpose. He may give, or cause to be given, notice of all meetings of the stockholders and of the Board, and shall perform such other duties as may be prescribed by the Board, the Chairman or the Chief Executive Officer, under whose supervision he shall act. He shall keep, or cause to be kept, in safe custody the seal of the Corporation and affix the same to any duly authorized instrument requiring it and, when so affixed, it may be attested by his signature or by the signature of the Treasurer or, if appointed, an Assistant Secretary or an Assistant Treasurer. The Board may give general authority to any other officer to affix the seal of the Corporation and to attest such affixing of the seal. He shall keep in safe custody the certificate books and stockholder records, including registers of the post office address of each stockholder and director, and such other books and records as the Board may direct, and shall perform all other duties incident to the office of Secretary and such other duties as from time to time may be assigned to him by the Board, the Chairman or the Chief Executive Officer.

SECTION 4.10 The Treasurer

The Treasurer shall supervise and be responsible for the care and custody of the corporate funds and other valuable effects, including securities, and shall keep, or cause to be kept, full and accurate accounts of receipts and disbursements in books belonging to the Corporation, and shall deposit, or cause to be deposited, all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board. The Treasurer shall disburse the funds of the Corporation as may be ordered by the Board, taking proper vouchers for such disbursements, and shall render to the Chairman, the Chief Executive Officer and directors, at the regular meetings of the Board, or whenever they may require it, an account of all his transactions as Treasurer and of the financial condition of the Corporation, and shall perform all other duties incident to the office of Treasurer and such other duties as from time to time may be assigned to him by the Board, the Chairman or the Chief Executive Officer.

ARTICLE 5
Contracts, Checks, Drafts, Bank Accounts, Etc.

SECTION 5.1 Execution of Documents

The Board shall designate, by either specific or general resolution, the officers, employees and agents of the Corporation who shall have the power to authorize, execute and deliver, for and on behalf of the Corporation, deeds, contracts, mortgages, bonds, debentures, checks, drafts and other orders for the payment of money and other documents for and in the name of the Corporation, and may authorize such officers, employees and agents to delegate such power (including authority to subdelegate) by written instrument to other officers, employees or agents of the Corporation; and, unless so designated or expressly authorized by these By-laws, no officer, employee or agent shall have any power or authority to bind the Corporation by any contract or engagement, to pledge its credit or to render it liable pecuniarily for any purpose or to any amount.

SECTION 5.2 Deposits

All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation or otherwise as the Board or Treasurer, or any other officer of the Corporation to whom power in this respect shall have been given by the Board, shall select.

SECTION 5.3 Proxies in Respect of Stock or Other Securities of Other Corporations

The Board shall designate the officers of the Corporation who shall have authority from time to time to appoint an agent or agents of the Corporation to exercise in the name and on behalf of the Corporation the powers and rights which the Corporation may have as the holder of stock or other securities in any other corporation, and to vote or consent in respect of such stock or securities. Such designated officers may instruct the person or persons so appointed as to the manner of exercising such powers and rights, and such designated officers may execute or cause to be executed in the name and on behalf of the Corporation and under its corporate seal or otherwise, such written proxies, powers of attorney or other instruments as they may deem necessary or proper in order that the Corporation may exercise its said powers and rights.

ARTICLE 6
Shares and Their Transfer; Fixing Record Date; Waiver of Notice

SECTION 6.1 Certificates for Shares

Subject to Section 6.2, every owner of stock of the Corporation shall be entitled to have a certificate certifying the number and class of shares owned by him in the Corporation, which shall be in such form as shall be prescribed by the Board. Each certificate for shares shall be numbered and issued in consecutive order. Certificates of stock in the Corporation, if any, shall be signed, either manually or in facsimile by two of the Chairman, the Chief Executive Officer, any Vice President, the Treasurer (or an Assistant Treasurer, if appointed), the Secretary (or an Assistant Secretary, if appointed) or any other authorized officers of the Corporation. Where a certificate is countersigned by a transfer agent, other than the Corporation or an employee of the Corporation, or by a registrar, the signatures of the Chairman or the Chief Executive Officer or a Vice President and the Treasurer or an Assistant Treasurer or the Secretary or an Assistant Secretary may be facsimiles. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, the certificate may be issued by the Corporation with the same effect as if such officer, transfer agent or registrar were such officer, transfer agent or registrar at the date of its issue. All certificates shall include written notice of any restrictions which may be imposed on the transferability of shares.

SECTION 6.2 Shares without Certificates

The Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation Within a reasonable time after the issue or transfer of shares without certificates, the Corporation shall send the stockholder a written statement of the information required by law on the certificates. The written statement shall include written notice of any restrictions which may be imposed on the transferability of such shares.

SECTION 6.3 Transfer of Stock

Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, it shall be the duty of the Corporation to issue a new certificate of stock or uncertificated shares in place of any certificate therefor issued by the Corporation to the person entitled thereto, cancel the old certificate and record the transaction in its stock transfer books.

SECTION 6.4 Addresses of Stockholders

Each stockholder shall designate to the Secretary an address at which notices of meetings and all other corporate notices may be served or mailed to him.

SECTION 6.5 Replacement

The Corporation may issue a new certificate of stock or uncertificated shares in place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

SECTION 6.6 Regulations

The Board may make such rules and regulations as it may deem expedient, not inconsistent with these By-laws, concerning the issue, transfer and registration of certificates for stock of the Corporation.

SECTION 6.7 Fixing Date for Determination of Stockholders of Record

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

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

SECTION 6.8 Waiver of Notice

Whenever notice is required to be given, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors or members of a committee of directors need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the Certificate or these By-laws.

ARTICLE 7
Seal

The corporate seal shall be in such form as may be approved from time to time by the Board. The seal may be used by causing it or a facsimile thereof, to be impressed or affixed or in any other manner reproduced.

ARTICLE 8
Fiscal Year

The fiscal year of the Corporation shall be fixed by resolution of the Board.

ARTICLE 9
Indemnification and Insurance

SECTION 9.1 Right to Indemnification

Each person who was, is or is threatened to be made a party to or is otherwise involved (including, without limitation, as a witness) in any threatened, pending or completed action, suit, claim or proceeding, whether civil, criminal, administrative or investigative and whether formal or informal (a "proceeding"), by reason of the fact that he or she is or was a director or officer of the Corporation or, that being or having been a director or officer of the Corporation, he or she is or was serving at the request of the Corporation as a director, officer, partner, trustee, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise (an "indemnitee"), whether the basis of a proceeding is alleged action in an official capacity or in any other capacity while serving as a director, officer, partner, trustee, employee or agent, shall be indemnified and held harmless, to the fullest extent permitted by Delaware law, by the Corporation against all losses, claims, damages (compensatory, exemplary, punitive or otherwise), liabilities and expenses (including attorneys' fees, costs, judgments, fines, ERISA excise taxes or penalties, amounts to be paid in settlement and any other expenses) actually and reasonably incurred or suffered by the indemnitee in connection with the proceeding, and the indemnification shall continue as to an indemnitee who has ceased to be a director or officer of the Corporation or a director, officer, partner, trustee, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise and shall inure to the benefit of the indemnitee's heirs, executors and administrators. Except as provided in Section 3 of this Article IX with respect to proceedings seeking to enforce rights to indemnification, the Corporation shall indemnify the indemnitee in connection with a proceeding (or part of a proceeding) initiated by the indemnitee only if a proceeding (or part of a proceeding) was authorized or ratified by the Board. The right to indemnification conferred in this Article IX shall be a contract right. The intent of this Article IX is to grant each indemnitee the maximum indemnification and advancement of expenses as allowed by law, subject to the limitations expressly provided in this Article IX.

SECTION 9.2 Advancement of Expenses

The right to indemnification conferred in this Article IX shall include the right to be paid by the Corporation the expenses (including attorneys' fees) incurred in defending any proceeding (or part thereof) in advance of its final disposition (an "advancement of expenses"). An advancement of expenses shall be made upon delivery to the Corporation of an undertaking (an "undertaking"), by or on behalf of the indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that the indemnitee is not entitled to be indemnified.

SECTION 9.3 Right of Indemnitee to Bring Suit

If a claim under Sections 1 and 2 of this Article IX is not paid in full by the Corporation within 60 days after a written claim has been received by the Corporation, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be 20 days, the indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. If successful in whole or in part, in any such suit or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall be entitled to be paid also the expense of litigating the suit. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article IX or otherwise shall be on the Corporation.

SECTION 9.4 Nonexclusivity of Rights

The right to indemnification and the advancement of expenses conferred in this Article IX shall not be exclusive of any other right that any person may have or hereafter acquire under any statute, provision of, the Certificate or By-laws of the Corporation, general or specific action of the Board or stockholders, contract or otherwise.

SECTION 9.5 Insurance, Contracts and Funding

The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, partner, trustee, employee or agent of the Corporation or another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise against any expense, liability or loss, whether or not the Corporation would have the authority or right to indemnify the person against the expense, liability or loss under the DGCL or other law. The Corporation may enter into contracts with any director, officer, partner, trustee, employee or agent of the Corporation in furtherance of the provisions of this Article IX and may create a trust fund, grant a security interest or use other means (including, without limitation, a letter of credit) to ensure the payment of the amounts as may be necessary to effect indemnification as provided in this Article IX.

SECTION 9.6 Indemnification of Employees and Agents of the Corporation

In addition to the rights of indemnification set forth in Section 1 of this Article IX, the Corporation may, by action of the Board, grant rights to indemnification and advancement of expenses to employees and agents or any class or group of employees and agents of the Corporation (a) with the same scope and effect as the provisions of this Article IX with respect to indemnification and the advancement of expenses of directors and officers of the Corporation, (b) pursuant to rights granted or provided by the DGCL, or (c) as are otherwise consistent with law.

SECTION 9.7 Persons Serving Other Entities

Any person who, while a director or officer of the Corporation, is or was serving (a) as a director, officer, employee or agent of another corporation of which a majority of the shares entitled to vote in the election of its directors is held by the Corporation or (b) as a partner, trustee or otherwise in an executive or management capacity in a partnership, joint venture, trust, employee benefit plan or other enterprise of which the Corporation or a majority owned subsidiary of the Corporation is a general partner or has a majority ownership, shall conclusively be deemed to be so serving at the request of the Corporation and entitled to indemnification and the advancement of expenses under Section 1 or 2 of this Article IX, respectively.

SECTION 9.8 Effect of Amendment or Repeal; Survival.

Any amendment, alteration or repeal of this Article IX that adversely affects any right of an indemnitee or its successors shall be prospective only and shall not limit, eliminate, or impair any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to such amendment or repeal. The right to indemnification and advancement of expenses under this Article IX shall be construed as a contractual right of the indemnitees, shall continue as a vested contractual right, even if a person ceases to be a director or officer of the corporation, and shall inure to the benefit of an indemnitee’s heirs, executors and administrators.

ARTICLE 10
Amendment

These By-laws may be altered, amended or repealed or new By-laws may be adopted by the Board or by the affirmative vote of the holders of a majority of the voting power of the issued and outstanding shares of stock of the Corporation.

GRID NOTE

Up to US $1,000,000 June 30, 2017

FOR VALUE RECEIVED, the undersigned, BioXcel Therapeutics, Inc., a Delaware corporation with an office at 780 East Main Street, Branford, CT 06405 ("***Payor***"), unconditionally promises to pay to the order of BioXcel Corporation, a Delaware corporation with an office at 780 East Main Street, Branford, CT 06405 ("***Payee***"), the principal sum of ONE MILLION DOLLARS ($1,000,000), or so much thereof as shall have been advanced by Payee to or on behalf of Payor, together with interest on the unpaid balance of each advance, which shall accrue at a rate per annum equal to the applicable federal rate for short-term loans as of the date hereof, in each case calculated based on a 365-day year and actual days elapsed. The obligations of Payor under this Grid Note (this "***Note***") shall be senior indebtedness of Payor and shall rank senior to all other indebtedness.

This Note evidences a revolving line of credit. Advances under this Note may be requested either orally or in writing by Payor, for the exclusive benefit of Payor in furtherance of conducting its business. All advances under this Note require the prior written approval of Payee and a record thereof shall be maintained in **Exhibit A** to this Note, *provided, however,* that the failure to so record shall in no way limit Payor's obligations with respect to repayment of principal or interest on any advance.

The entire balance of principal and accrued interest thereon shall be due and payable within 18 months upon execution or receiving a cumulative amount of TEN MILLION DOLLARS ($10,000,000) of financing, whichever is earlier.

If this Note is not paid on demand, Payor agrees to pay, in addition to the unpaid principal and accrued interest, all reasonable costs and expenses incurred in attempting or effecting payment or collection hereunder, including, but not limited to, reasonable attorneys' fees, whether or not suit is instituted.

Payor shall have the right at any time to prepay this Note, in whole or in part, without penalty, subject to the qualification, however, that no partial prepayment of the original sum shall in any way release, discharge or affect the obligation of Payor to make full payment in the amount of the balance of said principal sum at time of demand. Each and every payment (including all partial payments or prepayments) received by the Payee hereunder shall be applied first to any penalties for which the Payor is responsible under this Note which have not yet been paid, then to outstanding interest and then to outstanding principal. If any payment under this Note shall be specified to be made on a day which is not a business day, it shall be made on the next succeeding day which is a business day.

The amounts due hereunder are payable in lawful money of the United States of America to Payee at his address above, or at such other place as the holder of this Note shall from time to time designate, in immediately available funds.

No failure on the part of Payee or any other holder of this Note to exercise and no delay in

exercise by Payee or any other holder of this Note of any right, remedy or power hereunder preclude any other or future exercise of any other right, remedy or power.

This Note shall be binding upon Payor and its successors and assigns.

THIS NOTE IS AND SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CONNECTICUT. ANY CLAIMS OR LEGAL ACTIONS BY ONE PARTY AGAINST THE OTHER ARISING OUT OF THIS NOTE SHALL BE COMMENCED AND MAINTAINED IN ANY STATE OR FEDERAL COURT LOCATED IN THE STATE OF CONNECTICUT, AND PAYOR HEREBY EXPRESSLY, IRREVOCABLY AND UNCONDITIONALLY CONSENTS TO THE JURISDICTION OF SUCH COURTS AND HEREBY WAIVES TRIAL BY JURY IN ANY SUCH LEGAL ACTION OR PROCEEDING.

Diligence, presentment, demand, protest and notice of any kind are hereby waived by Payor and all sureties, guarantors and endorsers hereof, if any.

In the event that any one or more of the provisions of this Note shall for any reason be held to be invalid, illegal or unenforceable, in whole or in part, or in any respect, or in the event that any one or more of the provisions of this Note shall operate, or would prospectively operate, to invalidate this Note, then, and in any such event, such provision or provisions only shall be deemed null and void and of no force or effect and shall not affect any other provision of this Note, and the remaining provisions of this Note shall remain operative and in full force and effect, shall be valid, legal and enforceable, and shall in no way be affected, prejudiced or disturbed thereby.

IN WITNESS WHEREOF, Payor has caused this Note to be executed as of the date and year first above written.

BIOXCEL THERAPEUTICS, INC.

/s/ Vimal Mehta

By: Vimal Mehta
Its: CEO

EXHIBIT A

Amount of Advance	Date of Advance	Amount of Repayment	Date of Repayment	Balance Remaining
$ 299,500	06/30/2017			$ 299,500

***Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended**

AMENDED & RESTATED SEPARATION AND SHARED SERVICES AGREEMENT

This Amended & Restated Shared Services Agreement (this "***Agreement***") is entered into as of November 7, 2017 (the "***Execution Date***"), by and between BioXcel Corporation, a Delaware corporation located at 780 East Main Street, Branford, CT 06405 ("***BioXcel***"), and BioXcel Therapeutics, Inc., a Delaware corporation located at 780 East Main Street, Branford, CT 06405 ("***BTI***") in order to amend and restate the obligations of each of BioXcel and BTI under that certain Separation and Shared Services Agreement (the "***SSA***") entered into by BioXcel and BTI as of June 30, 2017 (the "***Effective Date***"). BioXcel and BTI are sometimes referred to individually as a "***Party***" and collectively as the "***Parties***."

RECITALS

WHEREAS, BioXcel identified a number of therapeutic candidates using its proprietary artificial intelligence-powered research and development engine known as 'EvolverAI'; and

WHEREAS, the Board of Directors of BioXcel determined that it was in BioXcel's best interest to restructure its business in order to realize the full potential of its assets, including such therapeutic candidates; and

WHEREAS, in accordance with the restructuring plan, BioXcel formed BTI, a product development biotechnology company, to develop and commercialize certain of the therapeutic candidates; and

WHEREAS, BioXcel and BTI entered into that certain Amended & Restated Contribution Agreement, which is attached as **Exhibit A**, (the "***Contribution Agreement***") whereby BioXcel contributed certain therapeutic candidates and other assets and liabilities to BTI; and

WHEREAS, BTI plans to develop and commercialize such therapeutic candidates; and

WHEREAS, to allow such work to be carried out by BTI, BioXcel desires to furnish the office space, equipment, services and leased employees described herein subject to the terms and conditions of this Agreement; and

WHEREAS, BioXcel desires to provide and BTI wishes to accept certain other financial support from BioXcel to support the efforts of BTI and to assist BTI with paying for the office space, equipment, services and leased employees described herein; and

WHEREAS, BTI desires to cease accepting space, equipment, services, leased employees and financial support pursuant to a separation plan, which is attached as **Exhibit B** (the "***Separation Plan***") and BioXcel desires to adhere to the Separation Plan.

NOW, THEREFORE, in consideration of the foregoing recitals and the terms and conditions set forth herein, the Parties hereto, intending to be legally bound, hereby agree to amend and restate the terms and conditions of the SSA as follows:

1. **Shared Office Space and Equipment**.

    a. Office Space. BioXcel shall make available to BTI sufficient space in the office leased by BioXcel and located at 780 East Main Street, Branford, CT 06405 (the "***Office***") during the Term (as defined below), including space for four (4) executives and three (3) hoteling seats (the "***BTI Space***"), to use for all purposes related to the conduct of BTI's

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business. In addition to the BTI Space, all common space in the Office, including conference rooms, the kitchen and the pantry shall be available for use by BTI (such common space and BTI Space together, the "***Space***").

b. Equipment. BioXcel shall provide for use by BTI of such furniture, fixtures, and office equipment as are reasonably necessary and appropriate for the operation of BTI, including furniture, fixtures, and office equipment as BioXcel may hereafter acquire during the Term of this Agreement. If BTI believes that any particular item of furniture or equipment is necessary for the effective conduct of BTI's operations, and if BioXcel determines not to acquire such item, then BTI shall have the right to acquire the same at BTI's own expense and locate it in the Office, such item(s) to be and remain the property of BTI.

c. Compliance with Lease. BTI agrees, at all times, to comply with and to cause its employees, contractors and agents to comply with all terms and conditions set forth in the real property lease between BioXcel and its landlord, as it may be amended from time to time; provided that BioXcel shall promptly provide BTI with a copy of such lease and any such amendments.

d. Compensation. In consideration of the use of the Space and the equipment, BTI shall pay to BioXcel a fee equal to $1,000 per month.

2. **Shared Services**.

    a. The Services. BioXcel shall perform for and on behalf of BTI the services set forth on **Exhibit C** (the "***Services***") during the Term, which Services shall include the use of the EvolverAI research and development engine.

    b. Performance Standards. BioXcel shall perform the Services in a timely, competent, and workmanlike manner and in a nature and at levels consistent with BioXcel's conduct of its own business.

c. Compensation.

In consideration of the provision of the following Services, in addition to amounts paid pursuant to Section 3(i):

i. BTI shall pay to BioXcel a fee equal to one thousand eight hundred fifty dollars ($1,850) per month for Services in the Branford, CT USA.

ii. BTI shall pay to BioXcel for Services related to intellectual property prosecution and management as outlined in Exhibit C

iii. BTI shall pay to BioXcel the sum of the amounts calculated by multiplying the actual hours spent towards services for and on behalf of BTI with the rates for each type of employee for Services by BioXcel through its subsidiary in India as outlined in Exhibit C.

d. EvolverAI Collaborative Services. On or before December 31, 2019, BTI shall have the option to enter into a Collaborative Services Agreement with BioXcel by which BioXcel shall perform product identification and related services for BTI utilizing the EvolverAI

Platform. The Parties agree to negotiate the terms of such Collaborative Services Agreement in good faith and that such agreement will incorporate reasonable market based terms, including consideration for BioXcel reflecting a low, single-digit royalty on net sales and reasonable development and commercialization milestone payments, provided that (i) development milestones shall not exceed $10 million in the aggregate and not be payable prior to proof of concept in humans and (ii) commercialization milestones shall be based on reaching annual net sales levels, be limited to 3% of the applicable net sales level, and not exceed $30M in the aggregate. BioXcel shall continue to make such product identification and related services available to BTI for at least sixty (60) months after the Effective Date.

3. **Leased Employee Services**.

a. Nature and Scope of Leased Employees. Subject to the requirements of applicable federal and state law, BioXcel will on the terms and subject to the conditions set forth in this Agreement, lease to BTI and BTI will lease from BioXcel the individuals listed on **Exhibit D** (the "***Leased Employees***" and each individually, a "***Leased Employee***"), to perform certain of the Services. In the event that BioXcel leases employees from an affiliate and causes such employees to become Leased Employees, BioXcel shall be solely responsible for any obligations with respect to any employment arrangement with such affiliate, including without limitation any obligations related to immigration or the immigration status of any of the Leased Employees, and shall indemnify and hold harmless BTI from any claims, losses, or liabilities arising from or relating to such obligations of BioXcel. In the event Leased Employees are employees of an affiliate, BioXcel shall cause such affiliate to make the Leased Employees available to perform the Services for and on behalf of BTI.

b. Wages, Benefits and Employment Policies. BioXcel shall have sole responsibility for (a) the establishment of initial salaries or wage rates and of subsequent adjustments thereto, if any, relating to the Leased Employees in each case subject to the approval of BTI, which approval shall not be unreasonably withheld; (b) the payment of all wages, salaries, and other forms of compensation to the Leased Employees; (c) the payment of all payroll, social security, and unemployment taxes related to the Leased Employees; (d) the establishment of all personnel policies and employee welfare benefit programs for the Leased Employees; and (e) the determination of work schedules for the Leased Employees who are not full time or who are not fully dedicated to the provision of the Services for and on behalf of BTI, consistent with the needs of BTI as set forth in this Agreement. BTI shall have full authority to direct the Leased Employees with respect to the performance by the Leased Employees of their respective Services to BTI. Nothing herein shall be construed to indicate that any Leased Employee is an employee of BTI and no Leased Employee shall be eligible to participate in any benefit program provided by BTI.

c. Employment of Leased Employees. BioXcel shall advise and discuss with BTI any decision to terminate or reassign any Leased Employees, but BioXcel shall have and retain full responsibility and authority for decisions regarding termination and reassignment of all Leased Employees.

d. Qualifications of Leased Employees. BioXcel represents and warrants to BTI as follows:

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended

i. Each Leased Employee is appropriately trained and experienced in the provision of services necessary to satisfy the requirements of their respective job descriptions.

ii. Each Leased Employee satisfies all applicable certification or licensure requirements under federal and state law.

e. Pre-Employment Screenings. BioXcel shall ensure that all Leased Employees have been subject to pre-employment screenings required by BioXcel's current policies.

f. Performance Evaluation. In the event that BTI provides reasonable evidence to BioXcel that the performance of a particular Leased Employee is unsatisfactory, BioXcel will take such action as it may deem appropriate to correct the performance issue or reassign the

Leased Employee. In the event that a Leased Employee is terminated or reassigned, BioXcel shall use reasonable commercial efforts to provide a replacement that is acceptable to BTI as soon as reasonably practicable.

g. Non-Discrimination. No Party shall discriminate against the Leased Employees or ask that the Leased Employees be removed on the basis of race, color, ancestry, national origin, religion, sex, sexual orientation, age, disability, whistle blower status or any other classification protected by applicable laws.

h. Support of Leased Employees. To the extent that the Leased Employees provide the Services at BTI's location, BTI will provide adequate facilities, equipment, computer software and hardware, telephone or any other types of support reasonably necessary or appropriate in order to enable the Leased Employees to perform the Services.

i. Compensation. BTI shall compensate BioXcel for the Leased Employees by paying to BioXcel the agreed upon hourly rate set forth in Exhibit D, which is calculated based on the salary and benefit expenses for each Leased Employee. BioXcel shall cause each Leased Employee to maintain and submit weekly timesheets to BTI which set forth the hours worked and a detailed explanation of the Services provided. BTI shall have the option to reasonably request overtime work from the Leased Employees. BTI shall be responsible for all overtime pay due to Leased Employees as a result of an overtime request made by BTI hereunder.

4. **Financial Support and Payment**.

a. Financial Support. BioXcel shall provide a line of credit to BTI, which shall be capped at One Million Dollars ($1,000,000) (the "***Total Funding Amount***"), pursuant to and in accordance with the terms and conditions of that certain Grid Note between the Parties, which is attached as **Exhibit E** (the "***Grid Note***"). BioXcel shall not be obligated to fund the operations of BTI beyond the Total Funding Amount. In the event BTI determines that it will require additional funding to support its operations and to execute the Separation Plan, BTI and BioXcel will, in good faith, assess increasing the Total Funding Amount, and, at the discretion of the Parties, shall amend the terms of the Grid Note or execute a new note to reflect any new funding.

b. Payment. BTI shall pay to BioXcel amounts due under Sections 1(d), 2(c) and 3(i). BioXcel shall send invoices to BioXcel for such amounts within thirty (30) days after the end of each calendar month. BTI shall pay each invoice within sixty (60) days after

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receipt thereof. If any portion of any invoice is disputed, BTI shall pay the undisputed amount, and the Parties shall use good faith efforts to reconcile the disputed amount as soon as possible.

c. Reimbursement for Past Support. The Parties recognize that BioXcel contributed services and support to BTI in connection with its organization and development prior to the date funding under the Grid Note was available to BTI in the amount of Five Hundred Sixty-two Thousand Dollars ($562,000). BTI shall reimburse BioXcel such amount on the earliest to occur of: (x) thirty days after the IPO (as defined in the Contribution Agreement); (y) ten (10) days after BTI receives funding of at least $5,000,000 other than through the IPO; and (z) December 31, 2018.

5. **Separation Plan**. BioXcel and BTI hereby acknowledge that the Services and the use of the Leased Employees and the Space shall decrease over time in accordance with the Separation Plan. The Parties further acknowledge that BTI plans to cease accepting all operational and financial support from BioXcel pursuant to the timeline set forth in the Separation Plan. The Parties agree to adhere to the terms of the Separation Plan. In the event BTI determines that the Separation Plan must be amended due to changes related to the business of BTI, including the development or commercialization of the therapeutic candidates, BTI shall notify BioXcel in writing and the Parties shall, in good faith, assess any continued support required by BTI. Any amendments to the Separation Plan shall be agreed upon in writing by the Parties and shall be attached in **Exhibit B** hereto.

6. **Recusal**. The Parties covenant and agree that, in support of the Separation Plan as long as Vimal Mehta is a member of senior management or the governing board of both BioXcel and BTI, he may participate in discussions at the senior management and governing board levels for each of BioXcel and BTI but shall not vote on matters coming before either governing board material to this Agreement, the Contribution Agreement or other agreements relating to the relationship between the Parties. Each Party shall ensure that Vimal Mehta recuses himself with respect to governing board matters consistent with this Section 6.

7. **Confidentiality**. Each Party shall maintain the confidentiality of all data, information, records, reports and all other nonpublic information provided to it by the other Party (the "***Confidential Information***"), and shall not disclose any Confidential Information to third parties for any reason unless and only to the extent jointly agreed to, in writing, by the Parties or as required by law. The foregoing applies to information communicated orally, in writing, by computer processes, and includes without limitation, this Agreement, any and all meeting notes, business plans, financial statements, analyses and/or research materials, corporate documents, and correspondence.

8. **Intellectual Property Rights**. BioXcel and BTI intend for any work product, including designs, business plans, correspondence (printed or electronic), discoveries, inventions, improvements, software, works of authorship, information, know-how, or other materials made, conceived, reduced to practice or developed in whole or in part by BioXcel or the Leased Employees during the Term or within six (6) months after the expiration of the Term in connection with the Services or that relate to the Confidential Information or the business of BTI (the "***Developments***") to be works made for hire. BTI shall own all right, title and interest in and to the Developments, and shall be deemed to be the author of the Developments for copyright purposes. Any and all forms of intellectual property rights including, without limitation, patents, trademarks, copyrights, mask rights, trade secrets and proprietary know-how related to or covering property therein resulting from the Services shall be owned by BTI and may be registered exclusively in the name of BTI in

the U.S. Copyright Office, the U.S. Patent and Trademark Office, and other similar registries in other countries. BioXcel shall promptly and shall cause the Leased Employees to promptly disclose to BTI all Developments and Confidential Information relating to the Services and perform all actions reasonably requested by BTI, whether during or after the Term, to establish and confirm BTI's ownership of Developments, Confidential Information and related intellectual property, including, without limitation, the execution and delivery of assignments, consents, powers of attorney and other instruments, and provide reasonable assistance to BTI or any of its affiliates in connection with (a) the prosecution of any applications for patents, trademarks, trade names, service marks, reissues thereof or other legal protection thereon, (b) the maintenance, enforcement and renewal of any rights that may be obtained, granted or vest therein, and (c) the prosecution and defense of any actions, proceedings, oppositions or interferences relating thereto. For clarity, Developments shall include any new product candidates and any related inventions identified through the use of EvolverAI in performing the Services.

9. **Term and Termination**.

a. Term. Unless terminated earlier in accordance with the terms hereof, the term of this Agreement shall commence as of Effective Date and terminate immediately upon the completion of the Separation Plan (the "***Term***").

b. Termination on Mutual Agreement. This Agreement may be terminated by mutual agreement of the Parties hereto at any time during the Term.

c. [Section intentionally left blank]

d. Termination on Insolvency of BTI. If BTI becomes bankrupt or insolvent, or makes any assignment for the benefit of creditors, or if a receiver is appointed to take charge of its property and such proceeding is not vacated or terminated within thirty (30) days after its commencement or institution, BioXcel may immediately terminate this Agreement by written notice after the thirty (30)-day period has passed. Any such termination shall be without prejudice to accrued rights of BioXcel, and to other rights and remedies for default.

e. Termination for Breach. Either Party may terminate this Agreement upon thirty (30) days' prior written notice if the other Party is in material breach of this Agreement and fails to cure such material breach within such thirty (30)-day period.

10. **Miscellaneous**.

a. Compliance with Applicable Law. In connection with the performance of this Agreement, both Parties shall comply with all applicable federal, state and local laws and regulations. Without limiting the foregoing, BioXcel shall maintain compliance with all laws and regulations governing the employment of the Leased Employees and BTI shall maintain compliance with all laws and regulations governing the supervision of the Leased Employees. The Parties shall cooperate with each other to effect such compliance.

b. Coordination Meetings. The Parties agree to meet and confer in good faith on a regular basis to discuss the Services provided hereunder.

c. Independent Contractors. The relationship between BioXcel on the one hand and BTI on the other is that of independent contractors, and none of the provisions of this Agreement

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is intended to create, nor will be construed to create, an agency, partnership or joint venture relationship between the Parties. No Party to this Agreement or any of their respective officers, members or employees, will be deemed to be the agent, employee or representative of another Party by virtue of this Agreement.

d. Force Majeure. No Party shall be deemed to be in default of this Agreement if prevented from performing any obligation hereunder for any reason beyond its control, including but not limited to, acts of God, war, civil commotion, fire, flood or casualty, labor difficulties, shortages of or inability to obtain labor, materials or equipment, governmental regulations or restrictions, or unusually severe weather. In any such case, the Parties agree to negotiate in good faith with the goal of preserving this Agreement and the respective rights and obligations of the Parties hereunder, to the extent reasonably practicable. It is agreed that financial inability shall not be deemed a matter beyond a Party's reasonable control.

e. Entire Agreement. This Agreement constitutes the entire agreement between the Parties relating to the subject matter hereof and supersede any prior understandings, agreements, or representations by or between the Parties, written or oral, to the extent they relate in any way to the subject matter hereof.

f. Succession and Assignment. This Agreement shall be binding upon and inure to the benefit of the Parties named herein and their respective successors and permitted assigns. Neither Party may assign either this Agreement or any of its rights, interests, or obligations hereunder without the prior written approval of the other Party. In the event that BioXcel sells, exclusively out-licenses or otherwise disposes of EvolverAI to a third party, BioXcel shall assign this Agreement to such third party and cause such third party to assume this Agreement, solely with respect to the continued provision of Services (including the use of EvolverAI in connection therewith) to BTI.

g. Counterparts. This Agreement may be executed in one or more counterparts (including by means of facsimile), each of which shall be deemed an original but all of which together will constitute one and the same instrument. The transmission of a copy of an executed signature page hereof by facsimile or portable document format (.pdf) shall have the same effect as the delivery of a manually executed counterpart hereof.

h. Headings. 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.

i. Notices. All notices, requests, demands, claims, and other communications hereunder shall be in writing and delivered to a Party at the address listed above. Any notice, request, demand, claim, or other communication hereunder shall be deemed duly given (a) when delivered personally to the recipient, (b) one (1) business day after being sent to the recipient by reputable overnight courier service (charges prepaid), or (c) four (4) business days after being mailed to the recipient by certified or registered mail. Any Party may change the address to which notices, requests, demands, claims, and other communications hereunder are to be delivered by giving the other Party notice in the manner herein set forth.

j. Governing Law; Waiver of Jury Trial. This Agreement shall be governed by and construed in accordance with the laws of the State of Connecticut without giving effect to

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any choice or conflict of law provision or rule (whether of the State of Connecticut or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Connecticut. BOTH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVE ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

k. Amendments. No amendment of any provision of this Agreement shall be valid unless the same shall be in writing and signed by both of the Parties.

l. Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction.

m. Incorporation of Exhibits. The Exhibits identified in this Agreement are incorporated herein by reference and made a part hereof.

n. No Waiver. The failure of any Party to this Agreement to assert any of its rights under this Agreement or otherwise shall not constitute a waiver of such rights. The waiver of any such right with respect to particular facts and other circumstances shall not be deemed a waiver with respect to any other facts and circumstances and each such right shall be deemed an ongoing right that may be asserted at any time and from time to time. No right, remedy or election given by any term of this Agreement shall be deemed exclusive but shall be cumulative with all of the rights, remedies and elections available at law or in equity.

[*Signature page follows*]

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended

IN WITNESS WHEREOF, the Parties hereto have executed this Amended & Restated Separation and Shared Services Agreement as of the Execution Date.

BIOXCEL CORPORATION	**BIOXCEL THERAPEUTICS, INC.**
By: /s/ Krishnan Nandabalan	By: /s/ Peter Mueller
Name: Krishnan Nandabalan	Name: Peter Mueller
Title: President	Title: Chairman

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended

Exhibit A

AMENDED & RESTATED ASSET CONTRIBUTION AGREEMENT

This Amended & Restated Asset Contribution Agreement (this "***Agreement***") is entered into as of November 7, 2017 (the "***Execution Date***"), by and between BioXcel Corporation, a Delaware corporation located at 780 East Main Street, Branford, CT 06405 ("***BioXcel***"), and BioXcel Therapeutics, Inc., a Delaware corporation located at 780 East Main Street, Branford, CT 06405 ("***BTI***").

WHEREAS, BioXcel identified a number of therapeutic candidates using its proprietary artificial intelligence-powered research and development engine known as 'EvolverAI'; and

WHEREAS, the Board of Directors of BioXcel determined that it was in BioXcel's best interest to restructure its business in order to realize the full potential of its assets, including such therapeutic candidates; and

WHEREAS, in accordance with the restructuring plan, BioXcel formed BTI, a product development biotechnology company, to develop and commercialize certain of the therapeutic candidates; and

WHEREAS, to allow such work to be carried out by BTI, BioXcel and BTI entered into certain agreements including an Asset Contribution Agreement, dated as of June 30, 2017 (the "***Effective Date***"), by which BioXcel contributed certain assets and liabilities to BTI pursuant to the terms and conditions thereof (the "***ACA***"); and

WHEREAS, BTI accepted certain assets and liabilities from BioXcel pursuant to the terms and conditions of the ACA; and

WHEREAS, BioXcel desires to transfer to BTI certain additional assets and liabilities and grant to BTI certain rights in future therapeutic candidates identified by BioXcel pursuant to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the covenants contained herein, and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties now agree to amend and restate the ACA as follows:

1. Contribution of Assets & Option.

   A. Initial Contribution of Assets. On the terms and subject to the conditions set forth in this Agreement, BioXcel hereby agrees to sell, contribute, assign, transfer, convey and deliver to BTI, and BTI agrees to acquire from BioXcel, all of BioXcel's right, title and interest in and to BXCL701, BXCL702, BXCL501, and BXCL502 (collectively, the "***Candidates***"), and all of the assets associated with the Candidates, other than those specified to be Retained Assets (as defined below), (collectively, the "***Assets***"), free and clear of any security interest, lien, charge, option, claim or other encumbrance (each, a "***Lien***"), other than those Liens listed on Schedule 1 (collectively, the "***Permitted Liens***"). The Assets include the following to the extent used or held for use in connection with the Candidates as of the Effective Date:

      a. The intellectual property set forth on Schedule 1(a) (collectively, the "***Intellectual Property***");

      b. All goodwill associated with the Assets;

      c. Except as set forth in Section 4 below, all of BioXcel's rights under the Contracts (as defined below);

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      d. All documentation, notebooks, logs, data and records associated with the Assets, and any other information necessary for the development of the Assets;

      e. All marketing and advertising materials in hard or soft copy, including without limitation, printed promotional materials and labels associated with the Assets;

      f. All claims, causes of action, rights of recovery, rights of setoff and rights of recoupment, whether or not known as of the Effective Date, relating to BioXcel's ownership of the Assets; and

      g. All rights under or pursuant to all warranties, indemnities, representations, guarantees and similar rights, whether or not known as of the Effective Date, in favor of BioXcel with respect to the Candidates or the Assets;

      h. The Tangible Assets (as defined below); and

      i. The assets specifically identified in Schedule 1(i).

   B. Option to Negotiate for Additional Product Candidates. BioXcel hereby grants to BTI a first right to negotiate exclusive rights to any additional product candidates in the fields of Neuroscience and Immuno-oncology (the "***Option Field***") that BioXcel may identify wholly on its own or under arrangements with third parties, and not in connection with BioXcel's provision of services to BTI under the Parties' Amended & Restated Separation and Shared Services Agreement. For clarity, this option shall not apply to any additional product candidates identified by BioXcel in connection with services BioXcel provides to BTI pursuant to the Parties' Amended & Restated Separation and Shared Services Agreement (including, without limitation services that involve the use of EvolverAI) because all such additional product candidates identified in connection with such services would be considered to be "Developments" (as defined in that agreement) already owned by BTI. This option for first negotiation shall be valid for a period of five (5) years from the date of the IPO (as defined below). Within sixty (60) days of identifying a potential product candidate in the Option Field, BioXcel shall present such identified candidate to BTI. BTI shall then have up to one hundred eighty (180) days in which to evaluate such product candidate (the "***Evaluation Period***"). If BTI wishes to negotiate for the exclusive rights to such product candidate, BTI shall so notify BioXcel in writing prior to the end of the Evaluation Period, and if BTI so notifies BioXcel, BTI and BioXcel shall negotiate in good faith commercially reasonable terms by which BTI can receive BioXcel's rights to such product candidate. If BioXcel and BTI are unable to mutually agree, in writing, within ninety (90) days after the end of the Evaluation Period to terms regarding BTI's rights to develop and/or commercialize such product candidate, BioXcel shall be free to develop and/or commercialize such product candidate either by itself or with one or more third parties. Notwithstanding anything contained herein to the contrary, BTI's rights and obligations set forth in this Section 1.B shall apply and be effective only from and after BTI's completion, on or before December 31, 2018, of a firm commitment underwritten public offering of share of common stock (and any other securities of BTI that may be sold along with such shares of common stock in any such public offering) ("***IPO***").

C. Exclusivity in Option Field. Prior to the fifth (5th) anniversary of the IPO, BioXcel shall not develop drugs, or engage in preclinical discovery for the purpose of developing drugs, in the Option Field for or on behalf of a third party, utilizing EvolverAI or otherwise. In support of the foregoing, BioXcel shall inform third parties with which it enters into collaborations or other arrangements that BTI holds a first right to negotiate for BioXcel's rights in product candidates in the Option Field and the duration of such right of BTI. BioXcel's covenant as set forth in this Section 1.C and BTI's right of

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first negotiation as set forth in Section 1.B shall not prevent or interfere with BioXcel's rights to the EvolverAI platform or use of the EvolverAI platform by third parties as long as BioXcel does not provide collaborative services to, or actively support, such third party in its evaluation of the results of the EvolverAI research and development engine to develop drugs in the Option Field.

2. Retained Assets. The assets set forth on Schedule 2 shall be retained by BioXcel and shall not be sold or assigned to BTI (the "***Retained Assets***").

3. Assumption of Liabilities. As of the Effective Date, BTI shall assume and will be responsible for and pay, perform, and discharge when due all liabilities associated with the Assets, including without limitation, payment of any fees required to maintain any registrations and applications for registration arising from the ownership or use of the Intellectual Property due on and after the Effective Date, and all obligations and liabilities of BioXcel under the Contracts to the extent that those obligations and liabilities relate to the period after the Effective Date, in each case exclusive of any liability or obligation arising thereunder as a result of any breach, default or failure of BioXcel to perform any covenants or obligations required to be performed by BioXcel prior to the Effective Date. In addition to the liabilities described in the previous sentence, in consideration of BioXcel's contribution of the Assets to BTI, BTI shall assume from BioXcel and be responsible for all liabilities set forth on Schedule 3, hereto (all liabilities assumed by BTI, including liabilities set forth on Schedule 3, the "***Assumed Liabilities***").

4. Assignment of Contracts. To the extent that any Contract is not capable of being assigned or transferred without the consent or waiver of the other party thereto or any third party, or if such assignment or transfer, or attempted assignment or transfer would constitute a breach thereof, this Agreement shall not constitute an assignment or transfer thereof, or an attempted assignment or transfer of any such Contract. Schedule 4 lists those Contracts that BioXcel believes are not assignable without the written consent of the other party thereto (the "***Required Consents***"). To the extent permitted by applicable law, any consents and approvals of third parties required for the transfer to BTI of any of the Assets, including the Required Consents, that are not obtained or cannot be obtained without any conditions adverse to BTI or without any obligations imposed on BTI not specified in the Contract for which consent is being obtained prior to the Effective Date (the "***Non-Assignable Contracts***"), such Non-Assignable Contracts shall be held, as of and from the Effective Date, by BioXcel in trust for BTI and the covenants and obligations thereunder shall be performed by BTI in BioXcel's name and all benefits and obligations existing thereunder shall be for BTI's account. BioXcel shall take or cause to be taken at BTI's expense such actions in its name or otherwise as BTI may reasonably request so as to provide BTI with the benefits of the Non-Assignable Contracts and to effect collection of money or other consideration that becomes due and payable under the Non-Assignable Contracts, and BioXcel shall promptly pay over to BTI all money or other consideration received by it in respect of the Non-Assignable Contracts. As of and from the Effective Date, BioXcel authorizes BTI, to the extent permitted by applicable law and the terms of the Non-Assignable Contracts, at BTI's expense, to perform all of the obligations and receive all the benefits of BioXcel under the Non-Assignable Contracts.

5. Intellectual Property Registrations. BioXcel shall authorize and request that any officials of any state or foreign country whose duty it is to issue intellectual property registrations (including letters patent) (a) issue all registrations from any from any applications for registrations, and (b) transfer any applications or registration as applicable, in each case that are included in the Intellectual Property to BTI at BioXcel's expense.

6. Consideration. The full consideration for the contribution of the Assets hereunder shall be:

   a. The issuance by BTI to BioXcel of Forty Thousand (40,000) shares of common stock of BTI.

***Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended**

   b. A one-time, lump-sum payment by BTI to BioXcel of Five Million Dollars ($5,000,000) upon the achievement of Fifty Million Dollars ($50,000,000) in cumulative Net Sales of any product or combination of products resulting from the development and commercialization of any one of the Candidates or a product derived therefrom. "Net Sales" shall mean the actual amounts received by BTI or its sublicensees on all sales of the product(s) in the world to third parties, less any of the following to the extent included in such amounts: (i) normal and customary trade and quantity discounts actually given; and, in case of returns or rejections of the product(s), the associated credits and price adjustments; (ii) rebates or commissions allowed or granted, and administrative fees paid, to government agencies or trade customers, including wholesalers and chain buying groups; (iii) prepaid freight, postage, shipping, customs duties and insurance charges; and (iv) sales, value-added, and excise taxes, tariffs, and other taxes and government charges directly related to the sale of the product(s) and actually borne by BTI or its sublicensees without reimbursement from any third party, excluding any taxes assessed against the income derived from such sale. Such amounts shall be determined in accordance with from the books and records of the applicable party using generally accepted accounting principles, consistently applied, and may include using accrual accounting where applicable.

   c. BTI shall pay to BioXcel the amount due under Section 6.b within sixty (60) days after the achievement of Fifty Million Dollars ($50,000,000) in cumulative Net Sales as set forth above.

   d. BTI shall pay BioXcel One Million Dollars ($1,000,000) as a lump sum within thirty (30) days after closing of the IPO.

   e. BTI shall pay BioXcel (x) Five Hundred Thousand Dollars ($500,000) within thirty (30) days after the later of the twelve (12) month anniversary of the IPO and the first dosing of a patient in the bridging bioavailability/bioequivalence study for the BXCL501 program and

(y) Five Hundred Thousand Dollars ($500,000) within thirty (30) days after the later of the twelve (12) month anniversary of the IPO and the first dosing of a patient in the Phase 2 PoC open label monotherapy or combination trial with Keytruda for the BXCL701 program.

7. Deliveries. Each party shall execute and deliver to the other party any such documents and instruments as shall be reasonably requested by the other party or the other party's counsel that are reasonably necessary to complete the transactions set forth herein.

8. Representations and Warranties of BioXcel.

a. BioXcel has full power and authority to enter into this Agreement and to consummate the transactions contemplated herein. BioXcel has taken all action required by law, by the organizational documents of BioXcel, or otherwise, to authorize the transactions contemplated herein. This Agreement, when executed and delivered by BioXcel, will constitute a valid and legally binding obligation, enforceable against BioXcel in accordance with its terms, except as the same may be restricted, limited or delayed by applicable bankruptcy or other laws affecting creditors' rights generally or by equitable principles and except as to the remedy of specific performance which may not be available under the laws of various jurisdictions.

b. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereunder will not (i) violate any provision of, result in a breach of, or constitute a default under, any law or any order, writ, injunction or decree of any court, governmental agency or arbitration tribunal applicable to BioXcel; (ii) constitute a violation of or

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a default under, or a conflict with, any term or provision of the governing documents of BioXcel; or (iii) constitute a violation of or a default under any contract, commitment, indenture, lease, instrument or other agreement, or any other restriction of any kind to which BioXcel is a party or is bound.

c. BioXcel has taken all action reasonably necessary to prosecute its existing intellectual property applications material to the Candidates and to maintain all Intellectual Property in full force and effect as of the Effective Date, and has not taken or failed to take any action that could reasonably have the effect of waiving any material rights to the Candidates or the Intellectual Property. As of the Effective Date, no Intellectual Property is or has been involved in any interference, opposition, cancellation, concurrent use, invalidity, reissue, reexamination, revocation, litigation or other proceeding, in which the scope, validity or enforceability of Intellectual Property is being or has been contested or challenged, and to BioXcel's knowledge, no such proceeding has been threatened with respect to any Intellectual Property.

d. BioXcel has not received any written notice from any person, and does not have any knowledge of, any claim, regarding the use of, or challenging or questioning BioXcel's right or title in, any of the Intellectual Property or alleging infringement or misappropriation of any Intellectual Property.

e. There is no claim, litigation, proceeding or governmental investigation pending or, to BioXcel's knowledge, threatened, or any order, injunction, or decree outstanding, against BioXcel, that would prevent or have a material adverse effect on the rights, duties or obligations of the parties as set forth in this Agreement.

f. Schedule 8(f) sets forth a complete and accurate list of all equipment (including computers, computer servers, information systems, telephone systems and database systems and office equipment), supplies, furniture, fixtures, and all other tangible personal property, wherever located (collectively, "***Tangible Assets***"). Any Tangible Assets to be contributed to BTI pursuant to this Agreement are in good operating condition and in good repair, normal wear and tear excepted.

g. Schedule 8(g) contains a complete list of the contracts, commitments, understandings, open purchase orders, contractor agreements or other agreements, including license agreements, equipment leases and manufacturers' and vendors' warranties relating to items included in the Assets and all similar rights against third parties relating to items included in the Assets (collectively, the "***Contracts***"). True and complete copies of all Contracts have been delivered to BTI. All Contracts listed on Schedule 8(g) were entered into in connection with and in the ordinary course of BioXcel's business, consistent with past practice. All the Contracts listed on Schedule 8(g) are in full force and effect and, to BioXcel's knowledge, there is no breach of any of the provisions of the Contracts by any party thereto. To BioXcel's knowledge, no condition exists that, with notice or lapse of time or both, would constitute a default by any party to any of those Contracts. To BioXcel's knowledge, no party to any of the Contracts listed on Schedule 8(g) has made, asserted or has any defense, set-off or counterclaim under any of the Contracts or has exercised any option granted to it to cancel or terminate its agreement, to shorten the term of its agreement or to renew or extend the term of its agreement, and BioXcel has not received any notice to that effect.

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9. Representations and Warranties of BTI.

a. BTI has full power and authority to enter into this Agreement and to consummate the transactions contemplated herein. BTI has taken all action required by law, by the organizational documents of BTI, or otherwise, to authorize the transactions contemplated herein. This Agreement, when executed and delivered by BTI, will constitute a valid and legally binding obligation, enforceable against BTI in accordance with its terms, except as the same may be restricted, limited or delayed by applicable bankruptcy or other laws affecting creditors' rights generally or by equitable principles and except as to the remedy of specific performance which may not be available under the laws of various jurisdictions.

b. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereunder will not (i) violate any provision of, result in a breach of, or constitute a default under, any law or any order, writ, injunction or decree of any court, governmental agency or arbitration tribunal applicable to BTI; (ii) constitute a violation of or a default under, or a conflict with, any term or provision of the governing documents of BTI; or (iii) constitute a violation of or a default under any contract, commitment, indenture, lease, instrument or other agreement, or any other restriction of any kind to which BTI is a party or is bound.

c. There is no claim, litigation, proceeding or governmental investigation pending or, to BTI's knowledge, threatened, or any order, injunction, or decree outstanding, against BTI, that would prevent or have a material adverse effect on the rights, duties or obligations of the parties as set forth in this Agreement.

10. Indemnification.

a. BioXcel shall indemnify and hold harmless BTI, and its directors, officers, employees, agents, and other representatives, from and against all loss, liability, claims, expenses, damages, fines, or penalties (including reasonable attorneys' fees) (collectively, "***Losses***") arising from or related to (i) BioXcel's breach of this Agreement, and (ii) any other liability or claim, whether commenced before or after the Effective Date, arising out of BioXcel's ownership of the Candidates and the Assets prior to the Effective Date (regardless of whether such liability or claim was known by BTI as of the Effective Date).

b. BTI shall indemnify and hold harmless BioXcel, and its directors, officers, employees, agents, and other representatives, from and against all Losses arising from or related to (i) BTI's breach of this Agreement, (ii) the failure by BTI to pay, perform or discharge when due any of the Assumed Liabilities, and (iii) BTI's ownership, development and commercialization of the Assets after the Effective Date.

11. Recusal. The Parties covenant and agree that as long as Vimal Mehta is a member of senior management or the governing board of both BioXcel and BTI, he may participate in discussions at the senior management and governing board levels for each of BioXcel and BTI but shall not vote on matters coming before either governing board material to this Agreement, the Amended & Restated Separation and Shared Services Agreement or other agreements relating to the relationship between the Parties. Each Party shall ensure that Vimal Mehta recuses himself with respect to governing board matters consistent with this Section 11.

12. Confidentiality. Each party shall maintain the confidentiality of all data, information, records, reports and all other nonpublic information provided to it by the other party (the "***Confidential Information***"), and shall not disclose any Confidential Information to third parties for any reason unless and only to the extent jointly agreed to, in writing, by the parties or as required by law. The foregoing applies to

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information communicated orally, in writing, by computer processes, and includes without limitation, this Agreement, any and all meeting notes, business plans, financial statements, analyses and/or research materials, corporate documents, and correspondence.

13. Governing Law. This Agreement shall be governed by and construed in accordance with the law of the State of Connecticut, without giving effect to principles governing conflicts of law.

14. Specific Performance. Each of the parties acknowledges and agrees that the other party would be damaged irreparably in the event any of the provisions of this Agreement are not performed in accordance with their specific terms or otherwise are breached. Accordingly, each of the parties agrees that the other party shall be entitled to an injunction or injunctions to prevent breaches of the provisions of this Agreement and to enforce specifically this Agreement and the terms and provisions hereof in any action instituted in any court of the United States or any state thereof having jurisdiction over the parties and the matter in addition to any other remedy to which they may be entitled, at law or in equity.

15. Assignment. No party may assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other party, except that either party may, without such consent, assign its rights and delegate its duties to a successor to such party's entire business.

16. Entire Agreement. This Agreement, including the schedules hereto, contains a complete statement of all the arrangements between the parties with respect to its subject matter, supersedes any previous agreements between them relating to that subject matter, and cannot be amended, modified or terminated except in a written document executed by the parties.

17. Severability. The invalidity of any provision or portion of a provision of this Agreement shall not affect the validity of any other provision of this Agreement or the remaining portion of the applicable provision. If any provision of this Agreement or the application of a particular provision to any party or circumstances shall be determined by any court of competent jurisdiction to be invalid or unenforceable to any extent, the remainder of this Agreement, or the application of such provision to such party or circumstances other than those to which it is determined to be invalid or enforceable, shall not be affected thereby, and each provision hereof shall be enforced to the fullest extent permitted by applicable law.

18. Amendments and Waivers. No amendment of any provision of this Agreement shall be valid unless the same shall be in writing and signed by the parties. No waiver by either party of any default, misrepresentation or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence.

19. Counterparts. This Agreement may be executed in one or more counterparts, which together shall constitute a single instrument. Facsimile or electronic delivery of an executed counterpart shall be valid and binding for all purposes.

[*Signature page follows*]

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended

IN WITNESS WHEREOF, the undersigned have caused this Amended & Restated Asset Contribution Agreement to be duly executed as of the Execution Date.

BIOXCEL CORPORATION	**BIOXCEL THERAPEUTICS, INC.**
/s/ Krishnan Nandabalan	/s/ Peter Mueller
Signature	Signature
Krishnan Nandabalan	Peter Mueller
Name Printed	Name Printed
President	Chairman
Title	Title

[*Signature page to Amended and Restated Asset Contribution Agreement*]

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Schedule 1

Permitted Liens

None

[*Schedule 1 to Asset Contribution Agreement*]

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Schedule 1(a)

Intellectual Property

Invention No	Project	Country name/stage	Title	Applicant	Priority App.no & Filing date	Complete Application No. & Filing date	Publication No. & Date
1	[***]	[***] [***] [***] [***]	[***]	[***]	[***]	[***] [***] [***] [***]	[***] [***] [***] [***]
2	[***]	[***]	[***]	[***]	[***]	[***]	[***]
3	[***]	[***]	[***]	[***]	[***]	[***] [***]	[***] [***]
4	[***]	[***]	[***]	[***]	[***]	[***]	[***]
5	[***]	[***]	[***]	[***]	[***]	[***]	[***]
6	[***]	[***]	[***]	[***]	[***]	[***]	[***]
7	[***]	[***]	[***]	[***]	[***]	[***]	[***]

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Schedule 1(i)

All Other Assets

Prepaid Expenses transferred to BTI: $46,105

[*Schedule 1(i) to Asset Contribution Agreement*]

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Schedule 2

Retained Assets

None

[*Schedule 2 to Asset Contribution Agreement*]

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Schedule 3

Assumed Liabilities

	$
List of Liabilities	
Capital one- 2191	2,685
Amex -42004	44,568
Amex- 32001	1,945
Accrued Expenses	55,244
Account Payable	244,190
Accrued Wages	90,408
Total Liabilities	**439,040**

[*Schedule 3 to Asset Contribution Agreement*]

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Schedule 4

Required Consents

[*Schedule 4 to Asset Contribution Agreement*]

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Schedule 8(f)

Tangible Assets

	$
List of Tangible Assets	
Fixed Assets	5,309
Accumulated Depreciation	(923)
Total Assets	**4,386**

[*Schedule 8(f) to Asset Contribution Agreement*]

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended

Schedule 8(g)

Contracts

1. Master Services Agreement between BioXcel and Charles River Laboratories International, Inc., dated as of July 6, 2016.
2. Letter of Payment Authorization between BioXcel and Charles River Laboratories International, Inc., dated as of August 1, 2016.
3. Consulting Services Agreement between BioXcel and Evan W. Ingersoll, dated as of April 17, 2017.
4. Master Services Agreement between BioXcel and BioDuro, LLC, dated as of August 3, 2016.
5. Project Proposal under the Master Services Agreement between BioXcel and BioDuro, LLC, dated as of August 24, 2016.
6. Second Amended and Restated Employment Agreement between BioXcel and Luca Rastelli, dated as of June 27, 2016.
7. First Amended and Restated Employment Agreement between BioXcel and Frank D. Yocca, dated as of March 1, 2016.
8. Data Purchase Agreement between BioXcel and Midatech Pharma US Inc., effective as of January 4, 2016.

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Exhibit B

Separation Plan

BioXcel Therapeutics (BTI) business focus is to develop and commercialize lead candidates contributed by BioXcel (parent) BXCL 501, 502, 701 and 702 and any future candidates.

Financing: BTI will be initially supported by BioXcel (parent) with grid note for up to $1M. BTI is expected to obtain its financing through private or public investment.

Board: BTI is to build required number of independent directors in its Board over the next 12-18 months.

Operations: BioXcel has assigned key management team to BTI to conduct its business and R&D functions. BTI management team is responsible for management and execution of R&D associated with BXCL501, 502, 701 and 702. In addition, all relevant material contracts assigned to BTI. BTI will continue to use shared office space and services from BioXcel as outlined in Table 1 below.

Table 1: Separation Plan Timelines

Facility / Services / Assets / Employees	Expected Timeframe	Additional Details
I.Shared Office Space and Equipment (Section 1)		
Office Space	12 months	Earlier than 12 months in the event of financing
Equipment	12 months	Earlier than 12 months in the event of financing
II.Shared Services (Section 2)		
i. Services in the Branford CT USA office	12 months	
ii. Services in the nature of support for intellectual property prosecution and management	12 months	
iii. Services by BioXcel thru its subsidiary in India	24-36 months	
III. Financial Support & Payment: Grid Note for $1M	Repaid in 18 months or upon $10M cumulative financing	Increase revolving line of credit based on mutual consent

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Exhibit C

The Services

A: BioXcel shall provide the following Services to BTI using the following rates:

1. Services in the Branford CT USA office ($1,850);
    a. General administrative support of approximately up to a maximum of 2 hours per day at $40 per hour; to be increased to $50 per hour after financing event of $5,000,000 or an IPO for BTI.
    b. Payroll services at $250 per month (for up to a maximum of 7 Employees); to be increased to $500 per month after financing event of $5,000,000 or an IPO for BTI.
2. Services for intellectual property prosecution and management (Flexible).

a. A fee of $250 per hour for a maximum of twenty hours per month. Fee shall be $500 per hour upon financing event of $5,000,000 or an IPO for BTI.

3. Services by BioXcel directly, or through its subsidiary in India, for various departments and corresponding hourly rates are outlined in the table below.

Title — Department (India)	Rate ($)
Managing Director	[***]
Director-Drug Discovery	[***]
Assistant Director-Drug Discovery	[***]
Assistant Director-Drug Discovery	[***]
Senior Manager-Drug Discovery	[***]
Principal Analyst-Drug Discovery	[***]
Principal Analyst-Drug Discovery	[***]
Principal Analyst-Drug Discovery	[***]
Principal Analyst-Medical Analytics	[***]
Principal Analyst-Data Science	[***]
Assistant Director-Commercial Analytics	[***]
Senior Manager-IP Analytics	[***]
	Apply nearest rate applicable based on Title - Department above

To be adjusted to CPI every year.

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Exhibit D

Leased Employees

Leased Employee Name	Salary Rate	
Vimal Mehta	90% of aggregate compensation	90% of time
Chids Mahadevan (through IPO)	90% of aggregate compensation	90% of time
Chids Mahadevan (after IPO)	50% of aggregate compensation	50% of time

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Exhibit E

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended

AMENDED & RESTATED ASSET CONTRIBUTION AGREEMENT

This Amended & Restated Asset Contribution Agreement (this "***Agreement***") is entered into as of November 7, 2017 (the "***Execution Date***"), by and between BioXcel Corporation, a Delaware corporation located at 780 East Main Street, Branford, CT 06405 ("***BioXcel***"), and BioXcel Therapeutics, Inc., a Delaware corporation located at 780 East Main Street, Branford, CT 06405 ("***BTI***").

WHEREAS, BioXcel identified a number of therapeutic candidates using its proprietary artificial intelligence-powered research and development engine known as 'EvolverAI'; and

WHEREAS, the Board of Directors of BioXcel determined that it was in BioXcel's best interest to restructure its business in order to realize the full potential of its assets, including such therapeutic candidates; and

WHEREAS, in accordance with the restructuring plan, BioXcel formed BTI, a product development biotechnology company, to develop and commercialize certain of the therapeutic candidates; and

WHEREAS, to allow such work to be carried out by BTI, BioXcel and BTI entered into certain agreements including an Asset Contribution Agreement, dated as of June 30, 2017 (the "***Effective Date***"), by which BioXcel contributed certain assets and liabilities to BTI pursuant to the terms and conditions thereof (the "***ACA***"); and

WHEREAS, BTI accepted certain assets and liabilities from BioXcel pursuant to the terms and conditions of the ACA; and

WHEREAS, BioXcel desires to transfer to BTI certain additional assets and liabilities and grant to BTI certain rights in future therapeutic candidates identified by BioXcel pursuant to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the covenants contained herein, and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties now agree to amend and restate the ACA as follows:

1. Contribution of Assets & Option.

   A. Initial Contribution of Assets. On the terms and subject to the conditions set forth in this Agreement, BioXcel hereby agrees to sell, contribute, assign, transfer, convey and deliver to BTI, and BTI agrees to acquire from BioXcel, all of BioXcel's right, title and interest in and to BXCL701, BXCL702, BXCL501, and BXCL502 (collectively, the "***Candidates***"), and all of the assets associated with the Candidates, other than those specified to be Retained Assets (as defined below), (collectively, the "***Assets***"), free and clear of any security interest, lien, charge, option, claim or other encumbrance (each, a "***Lien***"), other than those Liens listed on Schedule 1 (collectively, the "***Permitted Liens***"). The Assets include the following to the extent used or held for use in connection with the Candidates as of the Effective Date:

      a. The intellectual property set forth on Schedule 1(a) (collectively, the "***Intellectual Property***");

      b. All goodwill associated with the Assets;

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      c. Except as set forth in Section 4 below, all of BioXcel's rights under the Contracts (as defined below);

      d. All documentation, notebooks, logs, data and records associated with the Assets, and any other information necessary for the development of the Assets;

      e. All marketing and advertising materials in hard or soft copy, including without limitation, printed promotional materials and labels associated with the Assets;

      f. All claims, causes of action, rights of recovery, rights of setoff and rights of recoupment, whether or not known as of the Effective Date, relating to BioXcel's ownership of the Assets; and

      g. All rights under or pursuant to all warranties, indemnities, representations, guarantees and similar rights, whether or not known as of the Effective Date, in favor of BioXcel with respect to the Candidates or the Assets;

      h. The Tangible Assets (as defined below); and

      i. The assets specifically identified in Schedule 1(i).

   B. Option to Negotiate for Additional Product Candidates. BioXcel hereby grants to BTI a first right to negotiate exclusive rights to any additional product candidates in the fields of Neuroscience and Immuno-oncology (the "***Option Field***") that BioXcel may identify wholly on its own or under arrangements with third parties, and not in connection with BioXcel's provision of services to BTI under the Parties' Amended & Restated Separation and Shared Services Agreement. For clarity, this option shall not apply to any additional product candidates identified by BioXcel in connection with services BioXcel provides to BTI pursuant to the Parties' Amended & Restated Separation and Shared Services Agreement (including, without limitation services that involve the use of EvolverAI) because all such additional product candidates identified in

connection with such services would be considered to be "Developments" (as defined in that agreement) already owned by BTI. This option for first negotiation shall be valid for a period of five (5) years from the date of the IPO (as defined below). Within sixty (60) days of identifying a potential product candidate in the Option Field, BioXcel shall present such identified candidate to BTI. BTI shall then have up to one hundred eighty (180) days in which to evaluate such product candidate (the "***Evaluation Period***"). If BTI wishes to negotiate for the exclusive rights to such product candidate, BTI shall so notify BioXcel in writing prior to the end of the Evaluation Period, and if BTI so notifies BioXcel, BTI and BioXcel shall negotiate in good faith commercially reasonable terms by which BTI can receive BioXcel's rights to such product candidate. If BioXcel and BTI are unable to mutually agree, in writing, within ninety (90) days after the end of the Evaluation Period to terms regarding BTI's rights to develop and/or commercialize such product candidate, BioXcel shall be free to develop and/or commercialize such product candidate either by itself or with one or more third parties. Notwithstanding anything contained herein to the contrary, BTI's rights and obligations set forth in this Section 1.B shall apply and be effective only from and after BTI's completion, on or before December 31, 2018, of a firm commitment underwritten public offering of share of common stock (and any other securities of BTI that may be sold along with such shares of common stock in any such public offering) ("***IPO***").

C. Exclusivity in Option Field. Prior to the fifth (5^{th}) anniversary of the IPO, BioXcel shall not develop drugs, or engage in preclinical discovery for the purpose of developing drugs, in the Option Field for or on behalf of a third party, utilizing EvolverAI or otherwise. In support of the foregoing, BioXcel shall inform third parties with which it enters into collaborations or other arrangements that BTI holds a first right to negotiate for BioXcel's rights in product candidates in the Option Field and the

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duration of such right of BTI. BioXcel's covenant as set forth in this Section 1.C and BTI's right of first negotiation as set forth in Section 1.B shall not prevent or interfere with BioXcel's rights to the EvolverAI platform or use of the EvolverAI platform by third parties as long as BioXcel does not provide collaborative services to, or actively support, such third party in its evaluation of the results of the EvolverAI research and development engine to develop drugs in the Option Field.

2. Retained Assets. The assets set forth on Schedule 2 shall be retained by BioXcel and shall not be sold or assigned to BTI (the "***Retained Assets***").

3. Assumption of Liabilities. As of the Effective Date, BTI shall assume and will be responsible for and pay, perform, and discharge when due all liabilities associated with the Assets, including without limitation, payment of any fees required to maintain any registrations and applications for registration arising from the ownership or use of the Intellectual Property due on and after the Effective Date, and all obligations and liabilities of BioXcel under the Contracts to the extent that those obligations and liabilities relate to the period after the Effective Date, in each case exclusive of any liability or obligation arising thereunder as a result of any breach, default or failure of BioXcel to perform any covenants or obligations required to be performed by BioXcel prior to the Effective Date. In addition to the liabilities described in the previous sentence, in consideration of BioXcel's contribution of the Assets to BTI, BTI shall assume from BioXcel and be responsible for all liabilities set forth on Schedule 3, hereto (all liabilities assumed by BTI, including liabilities set forth on Schedule 3, the "***Assumed Liabilities***").

4. Assignment of Contracts. To the extent that any Contract is not capable of being assigned or transferred without the consent or waiver of the other party thereto or any third party, or if such assignment or transfer, or attempted assignment or transfer would constitute a breach thereof, this Agreement shall not constitute an assignment or transfer thereof, or an attempted assignment or transfer of any such Contract. Schedule 4 lists those Contracts that BioXcel believes are not assignable without the written consent of the other party thereto (the "***Required Consents***"). To the extent permitted by applicable law, any consents and approvals of third parties required for the transfer to BTI of any of the Assets, including the Required Consents, that are not obtained or cannot be obtained without any conditions adverse to BTI or without any obligations imposed on BTI not specified in the Contract for which consent is being obtained prior to the Effective Date (the "***Non-Assignable Contracts***"), such Non-Assignable Contracts shall be held, as of and from the Effective Date, by BioXcel in trust for BTI and the covenants and obligations thereunder shall be performed by BTI in BioXcel's name and all benefits and obligations existing thereunder shall be for BTI's account. BioXcel shall take or cause to be taken at BTI's expense such actions in its name or otherwise as BTI may reasonably request so as to provide BTI with the benefits of the Non-Assignable Contracts and to effect collection of money or other consideration that becomes due and payable under the Non-Assignable Contracts, and BioXcel shall promptly pay over to BTI all money or other consideration received by it in respect of the Non-Assignable Contracts. As of and from the Effective Date, BioXcel authorizes BTI, to the extent permitted by applicable law and the terms of the Non-Assignable Contracts, at BTI's expense, to perform all of the obligations and receive all the benefits of BioXcel under the Non-Assignable Contracts.

5. Intellectual Property Registrations. BioXcel shall authorize and request that any officials of any state or foreign country whose duty it is to issue intellectual property registrations (including letters patent) (a) issue all registrations from any from any applications for registrations, and (b) transfer any applications or registration as applicable, in each case that are included in the Intellectual Property to BTI at BioXcel's expense.

6. Consideration. The full consideration for the contribution of the Assets hereunder shall be:

   a. The issuance by BTI to BioXcel of Forty Thousand (40,000) shares of common stock of BTI.

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   b. A one-time, lump-sum payment by BTI to BioXcel of Five Million Dollars ($5,000,000) upon the achievement of Fifty Million Dollars ($50,000,000) in cumulative Net Sales of any product or combination of products resulting from the development and commercialization of any one of the Candidates or a product derived therefrom. "Net Sales" shall mean the actual amounts received by BTI or its sublicensees on all sales of the product(s) in the world to third parties, less any of the following to the extent included in such amounts: (i) normal and customary trade and quantity discounts actually given; and, in case of returns or rejections of the product(s), the associated credits and price adjustments; (ii) rebates or commissions allowed or granted, and administrative fees paid, to government agencies or trade customers, including wholesalers and chain buying groups; (iii) prepaid freight, postage, shipping, customs duties and insurance charges; and (iv) sales,

value-added, and excise taxes, tariffs, and other taxes and government charges directly related to the sale of the product(s) and actually borne by BTI or its sublicensees without reimbursement from any third party, excluding any taxes assessed against the income derived from such sale. Such amounts shall be determined in accordance with from the books and records of the applicable party using generally accepted accounting principles, consistently applied, and may include using accrual accounting where applicable.

c. BTI shall pay to BioXcel the amount due under Section 6.b within sixty (60) days after the achievement of Fifty Million Dollars ($50,000,000) in cumulative Net Sales as set forth above.

d. BTI shall pay BioXcel One Million Dollars ($1,000,000) as a lump sum within thirty (30) days after closing of the IPO.

e. BTI shall pay BioXcel (x) Five Hundred Thousand Dollars ($500,000) within thirty (30) days after the later of the twelve (12) month anniversary of the IPO and the first dosing of a patient in the bridging bioavailability/bioequivalence study for the BXCL501 program and (y) Five Hundred Thousand Dollars ($500,000) within thirty (30) days after the later of the twelve (12) month anniversary of the IPO and the first dosing of a patient in the Phase 2 PoC open label monotherapy or combination trial with Keytruda for the BXCL701 program.

7. Deliveries. Each party shall execute and deliver to the other party any such documents and instruments as shall be reasonably requested by the other party or the other party's counsel that are reasonably necessary to complete the transactions set forth herein.

8. Representations and Warranties of BioXcel.

a. BioXcel has full power and authority to enter into this Agreement and to consummate the transactions contemplated herein. BioXcel has taken all action required by law, by the organizational documents of BioXcel, or otherwise, to authorize the transactions contemplated herein. This Agreement, when executed and delivered by BioXcel, will constitute a valid and legally binding obligation, enforceable against BioXcel in accordance with its terms, except as the same may be restricted, limited or delayed by applicable bankruptcy or other laws affecting creditors' rights generally or by equitable principles and except as to the remedy of specific performance which may not be available under the laws of various jurisdictions.

b. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereunder will not (i) violate any provision of, result in a breach of, or constitute a default under, any law or any order, writ, injunction or decree of any court, governmental agency or arbitration tribunal applicable to BioXcel; (ii) constitute a violation of or a default under, or a conflict with, any term or provision of the governing documents of BioXcel;

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or (iii) constitute a violation of or a default under any contract, commitment, indenture, lease, instrument or other agreement, or any other restriction of any kind to which BioXcel is a party or is bound.

c. BioXcel has taken all action reasonably necessary to prosecute its existing intellectual property applications material to the Candidates and to maintain all Intellectual Property in full force and effect as of the Effective Date, and has not taken or failed to take any action that could reasonably have the effect of waiving any material rights to the Candidates or the Intellectual Property. As of the Effective Date, no Intellectual Property is or has been involved in any interference, opposition, cancellation, concurrent use, invalidity, reissue, reexamination, revocation, litigation or other proceeding, in which the scope, validity or enforceability of Intellectual Property is being or has been contested or challenged, and to BioXcel's knowledge, no such proceeding has been threatened with respect to any Intellectual Property.

d. BioXcel has not received any written notice from any person, and does not have any knowledge of, any claim, regarding the use of, or challenging or questioning BioXcel's right or title in, any of the Intellectual Property or alleging infringement or misappropriation of any Intellectual Property.

e. There is no claim, litigation, proceeding or governmental investigation pending or, to BioXcel's knowledge, threatened, or any order, injunction, or decree outstanding, against BioXcel, that would prevent or have a material adverse effect on the rights, duties or obligations of the parties as set forth in this Agreement.

f. Schedule 8(f) sets forth a complete and accurate list of all equipment (including computers, computer servers, information systems, telephone systems and database systems and office equipment), supplies, furniture, fixtures, and all other tangible personal property, wherever located (collectively, "***Tangible Assets***"). Any Tangible Assets to be contributed to BTI pursuant to this Agreement are in good operating condition and in good repair, normal wear and tear excepted.

g. Schedule 8(g) contains a complete list of the contracts, commitments, understandings, open purchase orders, contractor agreements or other agreements, including license agreements, equipment leases and manufacturers' and vendors' warranties relating to items included in the Assets and all similar rights against third parties relating to items included in the Assets (collectively, the "***Contracts***"). True and complete copies of all Contracts have been delivered to BTI. All Contracts listed on Schedule 8(g) were entered into in connection with and in the ordinary course of BioXcel's business, consistent with past practice. All the Contracts listed on Schedule 8(g) are in full force and effect and, to BioXcel's knowledge, there is no breach of any of the provisions of the Contracts by any party thereto. To BioXcel's knowledge, no condition exists that, with notice or lapse of time or both, would constitute a default by any party to any of those Contracts. To BioXcel's knowledge, no party to any of the Contracts listed on Schedule 8(g) has made, asserted or has any defense, set-off or counterclaim under any of the Contracts or has exercised any option granted to it to cancel or terminate its agreement, to shorten the term of its agreement or to renew or extend the term of its agreement, and BioXcel has not received any notice to that effect.

9. Representations and Warranties of BTI.

a. BTI has full power and authority to enter into this Agreement and to consummate the transactions contemplated herein. BTI has taken all action required by law, by the organizational documents

of BTI, or otherwise, to authorize the transactions contemplated herein. This Agreement, when executed and delivered by BTI, will constitute a valid and legally binding obligation, enforceable against BTI in accordance with its terms, except as the same may be restricted, limited or delayed by applicable bankruptcy or other laws affecting creditors' rights generally or by equitable principles and except as to the remedy of specific performance which may not be available under the laws of various jurisdictions.

b. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereunder will not (i) violate any provision of, result in a breach of, or constitute a default under, any law or any order, writ, injunction or decree of any court, governmental agency or arbitration tribunal applicable to BTI; (ii) constitute a violation of or a default under, or a conflict with, any term or provision of the governing documents of BTI; or (iii) constitute a violation of or a default under any contract, commitment, indenture, lease, instrument or other agreement, or any other restriction of any kind to which BTI is a party or is bound.

c. There is no claim, litigation, proceeding or governmental investigation pending or, to BTI's knowledge, threatened, or any order, injunction, or decree outstanding, against BTI, that would prevent or have a material adverse effect on the rights, duties or obligations of the parties as set forth in this Agreement.

10. Indemnification.

a. BioXcel shall indemnify and hold harmless BTI, and its directors, officers, employees, agents, and other representatives, from and against all loss, liability, claims, expenses, damages, fines, or penalties (including reasonable attorneys' fees) (collectively, "***Losses***") arising from or related to (i) BioXcel's breach of this Agreement, and (ii) any other liability or claim, whether commenced before or after the Effective Date, arising out of BioXcel's ownership of the Candidates and the Assets prior to the Effective Date (regardless of whether such liability or claim was known by BTI as of the Effective Date).

b. BTI shall indemnify and hold harmless BioXcel, and its directors, officers, employees, agents, and other representatives, from and against all Losses arising from or related to (i) BTI's breach of this Agreement, (ii) the failure by BTI to pay, perform or discharge when due any of the Assumed Liabilities, and (iii) BTI's ownership, development and commercialization of the Assets after the Effective Date.

11. Recusal. The Parties covenant and agree that as long as Vimal Mehta is a member of senior management or the governing board of both BioXcel and BTI, he may participate in discussions at the senior management and governing board levels for each of BioXcel and BTI but shall not vote on matters coming before either governing board material to this Agreement, the Amended & Restated Separation and Shared Services Agreement or other agreements relating to the relationship between the Parties. Each Party shall ensure that Vimal Mehta recuses himself with respect to governing board matters consistent with this Section 11.

12. Confidentiality. Each party shall maintain the confidentiality of all data, information, records, reports and all other nonpublic information provided to it by the other party (the "***Confidential Information***"), and shall not disclose any Confidential Information to third parties for any reason unless and only to the extent jointly agreed to, in writing, by the parties or as required by law. The foregoing applies to information communicated orally, in writing, by computer processes, and includes without limitation, this

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Agreement, any and all meeting notes, business plans, financial statements, analyses and/or research materials, corporate documents, and correspondence.

13. Governing Law. This Agreement shall be governed by and construed in accordance with the law of the State of Connecticut, without giving effect to principles governing conflicts of law.

14. Specific Performance. Each of the parties acknowledges and agrees that the other party would be damaged irreparably in the event any of the provisions of this Agreement are not performed in accordance with their specific terms or otherwise are breached. Accordingly, each of the parties agrees that the other party shall be entitled to an injunction or injunctions to prevent breaches of the provisions of this Agreement and to enforce specifically this Agreement and the terms and provisions hereof in any action instituted in any court of the United States or any state thereof having jurisdiction over the parties and the matter in addition to any other remedy to which they may be entitled, at law or in equity.
15. Assignment. No party may assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other party, except that either party may, without such consent, assign its rights and delegate its duties to a successor to such party's entire business.

16. Entire Agreement. This Agreement, including the schedules hereto, contains a complete statement of all the arrangements between the parties with respect to its subject matter, supersedes any previous agreements between them relating to that subject matter, and cannot be amended, modified or terminated except in a written document executed by the parties.

17. Severability. The invalidity of any provision or portion of a provision of this Agreement shall not affect the validity of any other provision of this Agreement or the remaining portion of the applicable provision. If any provision of this Agreement or the application of a particular provision to any party or circumstances shall be determined by any court of competent jurisdiction to be invalid or unenforceable to any extent, the remainder of this Agreement, or the application of such provision to such party or circumstances other than those to which it is determined to be invalid or enforceable, shall not be affected thereby, and each provision hereof shall be enforced to the fullest extent permitted by applicable law.

18. Amendments and Waivers. No amendment of any provision of this Agreement shall be valid unless the same shall be in writing and signed by the parties. No waiver by either party of any default, misrepresentation or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence.

19. Counterparts. This Agreement may be executed in one or more counterparts, which together shall constitute a single instrument. Facsimile or electronic delivery of an executed counterpart shall be valid and binding for all purposes.

[*Signature page follows*]

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IN WITNESS WHEREOF**,** the undersigned have caused this Amended & Restated Asset Contribution Agreement to be duly executed as of the Execution Date.

BIOXCEL CORPORATION	**BIOXCEL THERAPEUTICS, INC.**
/s/ Krishnan Nandabalan	/s/ Peter Mueller
Signature	Signature
Krishnan Nandabalan	Peter Mueller
Name Printed	Name Printed
President	Chairman
Title	Title

[*Signature page to Amended and Restated Asset Contribution Agreement*]

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Schedule 1

Permitted Liens

None

[*Schedule 1 to Asset Contribution Agreement*]

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Schedule 1(a)

Intellectual Property

Invention No	Project	Country name/stage	Title	Applicant	Priority App.no & Filing date	Complete Application No. & Filing date	Publication No. & Date
1	***[***]***	***[***]*** ***[***]*** ***[***]*** ***[***]***	***[***]***	***[***]***	***[***]***	***[***]*** ***[***]*** ***[***]*** ***[***]***	***[***]*** ***[***]*** ***[***]*** ***[***]***
2	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***
3	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]*** ***[***]***	***[***]*** ***[***]***
4	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***
5	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***
6	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***	***[***]***

7	*[***]*	*[***]*	*[***]*	*[***]*	*[***]*	*[***]*	*[***]*

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended

Schedule 1(i)

All Other Assets

Prepaid Expenses transferred to BTI: $46,105

[*Schedule 1(i) to Asset Contribution Agreement*]

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Schedule 2

Retained Assets

None

[*Schedule 2 to Asset Contribution Agreement*]

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Schedule 3

Assumed Liabilities

List of Liabilities	$
Capital one- 2191	2,685
Amex -42004	44,568
Amex- 32001	1,945
Accrued Expenses	55,244
Account Payable	244,190
Accrued Wages	90,408
Total Liabilities	**439,040**

[*Schedule 3 to Asset Contribution Agreement*]

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Securities and Exchange Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended

Schedule 4

Required Consents

[*Schedule 4 to Asset Contribution Agreement*]

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Schedule 8(f)

Tangible Assets

List of Tangible Assets	$

Fixed Assets	5,309
Accumulated Depreciation	(923)
Total Assets	**4,386**

[*Schedule 8(f) to Asset Contribution Agreement*]

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Schedule 8(g)

Contracts

1. Master Services Agreement between BioXcel and Charles River Laboratories International, Inc., dated as of July 6, 2016.
2. Letter of Payment Authorization between BioXcel and Charles River Laboratories International, Inc., dated as of August 1, 2016.
3. Consulting Services Agreement between BioXcel and Evan W. Ingersoll, dated as of April 17, 2017.
4. Master Services Agreement between BioXcel and BioDuro, LLC, dated as of August 3, 2016.
5. Project Proposal under the Master Services Agreement between BioXcel and BioDuro, LLC, dated as of August 24, 2016.
6. Second Amended and Restated Employment Agreement between BioXcel and Luca Rastelli, dated as of June 27, 2016.
7. First Amended and Restated Employment Agreement between BioXcel and Frank D. Yocca, dated as of March 1, 2016.
8. Data Purchase Agreement between BioXcel and Midatech Pharma US Inc., effective as of January 4, 2016.

[*Schedule 8(g) to Asset Contribution Agreement*]

BIOXCEL THERAPEUTICS, INC.

2017 EQUITY INCENTIVE PLAN

1. *Purpose*. The purpose of the BioXcel Therapeutics, Inc. 2017 Equity Incentive Plan is to provide a means through which the Company and its Affiliates may attract and retain key personnel and to provide a means whereby directors, officers, managers, employees, consultants and advisors of the Company and its Affiliates can acquire and maintain an equity interest in the Company, or be paid incentive compensation, which may (but need not) be measured by reference to the value of Common Shares, thereby strengthening their commitment to the welfare of the Company and its Affiliates and aligning their interests with those of the Company's stockholders.

2. *Definitions*. The following definitions shall be applicable throughout this Plan:

(a) "*Affiliate*" means (i) any person or entity that directly or indirectly controls, is controlled by or is under common control with the Company and/or (ii) to the extent provided by the Committee, any person or entity in which the Company has a significant interest as determined by the Committee in its discretion. The term "control" (including, with correlative meaning, the terms "controlled by" and "under common control with"), as applied to any person or entity, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such person or entity, whether through the ownership of voting or other securities, by contract or otherwise.

(b) "*Award*" means, individually or collectively, any Incentive Stock Option, Nonqualified Stock Option, Stock Appreciation Right, Restricted Stock, Restricted Stock Unit, Stock Bonus Award or Performance Compensation Award granted under this Plan.

(c) "*Award Agreement*" means an agreement made and delivered in accordance with Section 15(a) of this Plan evidencing the grant of an Award hereunder.

(d) "*Board*" means the Board of Directors of the Company.

(e) "*Business Day*" means any day other than a Saturday, a Sunday or a day on which banking institutions in New York City are authorized or obligated by federal law or executive order to be closed.

(f) "*Cause*" means, in the case of a particular Award, unless the applicable Award Agreement states otherwise, (i) the Company or an Affiliate having "cause" to terminate a Participant's employment or service, as defined in any employment or consulting agreement or similar document or policy between the Participant and the Company or an Affiliate in effect at the time of such termination or (ii) in the absence of any such employment or consulting agreement, document or policy (or the absence of any definition of "Cause" contained therein), (A) a material breach or material default (including, without limitation, any material dereliction of duty) by Participant of any agreement between the Participant and the Company, except for any such breach or default which is caused by the physical disability of the Participant (as determined by a neutral physician), or a repeated failure by the Participant to follow the direction of a duly authorized representative of the Company; (B) gross negligence, willful misfeasance or breach of fiduciary duty to the Company or Affiliate of the Company by the Participant; (C) the commission by the Participant of an act or omission involving fraud, embezzlement, misappropriation or dishonesty in connection with the Participant's duties to the Company or Affiliate of the Company or that is otherwise likely to be injurious to the business or reputation of the Company or

its Affiliates; or (D) the Participant's conviction of, indictment for, or pleading guilty or *nolo contendere* to, any (x) felony or (y) other crime involving fraud or moral turpitude. Any determination of whether Cause exists shall be made by the Committee in its sole discretion.

(g) "*Change in Control*" shall, in the case of a particular Award, unless the applicable Award Agreement states otherwise or contains a different definition of "Change in Control," be deemed to occur upon:

(i) A tender offer (or series of related offers) shall be made and consummated for the ownership of 50% or more of the outstanding voting securities of the Company, unless as a result of such tender offer more than 50% of the outstanding voting securities of the surviving or resulting corporation or entity shall be owned in the aggregate by (A) the shareholders of the Company (as of the time immediately prior to the commencement of such offer), or (B) any employee benefit plan of the Company or its Subsidiaries, and their Affiliates;

(ii) The Company shall be merged or consolidated with another corporation, unless as a result of such merger or consolidation more than 50% of the outstanding voting securities of the surviving or resulting corporation or entity shall be owned in the aggregate by (A) the shareholders of the Company (as of the time immediately prior to such transaction); provided, that a merger or consolidation of the Company with another company which is controlled by persons owning more than 50% of the outstanding voting securities of the Company shall constitute a Change in Control unless the Committee, in its discretion, determine otherwise, or (B) any employee benefit plan of the Company or its Subsidiaries, and their Affiliates;

(iii) The Company shall sell substantially all of its assets to another entity that is not wholly owned by the Company, unless as a result of such sale more than 50% of such assets shall be owned in the aggregate by (A) the shareholders of the Company (as of the time immediately prior to such transaction), or (B) any employee benefit plan of the Company or its Subsidiaries, and their Affiliates;

(iv) A Person (as defined below) shall acquire 50% or more of the outstanding voting securities of the Company (whether directly, indirectly, beneficially or of record), unless as a result of such acquisition more than 50% of the outstanding voting securities of the surviving or resulting corporation or entity shall be owned in the aggregate by (A) the shareholders of the Company (as of the time immediately prior to the first acquisition of such securities by such Person), or (B) any employee benefit plan of the Company or its Subsidiaries, and their Affiliates; or

(v) The individuals who, as of the date hereof, constitute the members of the Board (the "Current Board Members") cease, by reason of a financing, merger, combination, acquisition, takeover or other non-ordinary course transaction affecting the Company, to constitute at least a majority of the members of the Board unless such change is approved by the Current Board Members.

For purposes of this Section 2(g), ownership of voting securities shall take into account and shall include ownership as determined by applying the provisions of Rule 13d-3(d)(I)(i) (as in effect on the date hereof) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In addition, for such purposes, "Person" shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof; however, a Person shall not include (A) the Company or any of its Subsidiaries; (B) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Subsidiaries; (C) an underwriter temporarily holding securities pursuant to an offering of such securities; or (D) a corporation owned, directly or indirectly, by

the shareholders of the Company in substantially the same proportion as their ownership of stock of the Company. If the timing of payments provided under an Award Agreement is based on or triggered by a Change in Control then, to extent necessary to avoid violating Section 409A, a Change in Control must also constitute a Change in Control Event as defined under Section 409A.

(h) "*Code*" means the Internal Revenue Code of 1986, as amended, and any successor thereto. References in this Plan to any section of the Code shall be deemed to include any regulations or other interpretative guidance issued by any governmental authority under such section, and any amendments or successor provisions to such section, regulations or guidance.

(i) "*Committee*" means a committee of at least two people as the Board may appoint to administer this Plan or, if no such committee has been appointed by the Board, the Board. Unless altered by an action of the Board, the Committee shall be the Compensation Committee of the Board.

(j) "*Common Shares*" means the common stock, par value $0.001 per share, of the Company (and any stock or other securities into which such common shares may be converted or into which they may be exchanged).

(k) "*Company*" means BioXcel Therapeutics, Inc., a Delaware corporation, together with its successors and assigns.

(l) "*Current Board Members*" has the meaning given such term in the definition of "Change in Control."

(m) "*Date of Grant*" means the date on which the granting of an Award is authorized, or such other date as may be specified in such authorization.

(n) "*Disability*" means, in the case of a particular Award, unless the applicable Award Agreement states otherwise, (i) "Disability" as defined in any employment or consulting agreement or similar document or policy in effect between the Participant and the Company or an Affiliate or (ii) in the absence of any such employment or consulting agreement, document or policy (or the absence of any definition of "Disability" contained therein), the inability of the Participant to perform the essential functions of the Participant's job by reason of a physical or mental infirmity, for a period of three (3) consecutive months or for an aggregate of six (6) months in any twelve (12) consecutive month period. The determination of whether a Participant has incurred a permanent and total disability shall be made by a physician designated by the Committee, whose determination shall be final and binding.

(o) "*Effective Date*" means the date as of which this Plan is adopted by the Board, subject to Section 3 of this Plan.

(p) "*Eligible Director*" means a person who is (i) a "non-employee director" within the meaning of Rule 16b-3 under the Exchange Act, and (ii) an "outside director" within the meaning of Section 162(m) of the Code.

(q) "*Eligible Person*" means any (i) individual employed by the Company, a Subsidiary or an Affiliate; *provided, however*, that no such employee covered by a collective bargaining agreement shall be an Eligible Person unless and to the extent that such eligibility is set forth in such collective bargaining agreement or in an agreement or instrument relating thereto; (ii) director of the Company, a Subsidiary or an Affiliate; or (iii) consultant or advisor to the Company or an Affiliate, provided that if the Securities Act applies such persons must be eligible to be offered securities registrable on Form S-8 under the Securities Act.

(r) "*Exchange Act*" has the meaning given such term in the definition of "Change in Control," and any reference in this Plan to any section of (or rule promulgated under) the Exchange Act shall be deemed to include any rules, regulations or other interpretative guidance issued by any governmental authority under such section or rule, and any amendments or successor provisions to such section, rules, regulations or guidance.

(s) "*Exercise Price*" has the meaning given such term in Section 7(b) of this Plan.

(t) "*Fair Market Value*", unless otherwise provided by the Committee in accordance with all applicable laws, rules regulations and standards, means, on a given date, (i) if the Common Shares are listed on a national securities exchange, the closing sales price on the principal exchange of the Common Shares on such date or, in the absence of reported sales on such date, the closing sales price on the immediately preceding date on which sales were reported, or (ii) if the Common Shares are not listed on a national securities exchange, the mean between the bid and offered prices as quoted by any nationally recognized interdealer quotation system for such date, provided that if the Common Shares are not quoted on an interdealer quotation system or it is determined that the fair market value is not properly reflected by such quotations, Fair Market Value will be determined by such other method as the Committee determines in good faith to be reasonable and in compliance with Section 409A.

(u) "*Immediate Family Members*" shall have the meaning set forth in Section 15(b) of this Plan.

(v) "*Incentive Stock Option*" means an Option that is designated by the Committee as an incentive stock option as described in Section 422 of the Code and otherwise meets the requirements set forth in this Plan.

(w) "*Indemnifiable Person*" shall have the meaning set forth in Section 4(e) of this Plan.

(x) "*Negative Discretion*" shall mean the discretion authorized by this Plan to be applied by the Committee to eliminate or reduce the size of a Performance Compensation Award consistent with Section 162(m) of the Code.

(y) "*Nonqualified Stock Option*" means an Option that is not designated by the Committee as an Incentive Stock Option.

(z) "*Option*" means an Award granted under Section 7 of this Plan.

(aa) "*Option Period*" has the meaning given such term in Section 7(c) of this Plan.

(bb) "*Participant*" means an Eligible Person who has been selected by the Committee to participate in this Plan and to receive an Award pursuant to Section 6 of this Plan.

(cc) "*Performance Compensation Award*" shall mean any Award designated by the Committee as a Performance Compensation Award pursuant to Section 11 of this Plan.

(dd) "*Performance Criteria*" shall mean the criterion or criteria that the Committee shall select for purposes of establishing the Performance Goal(s) for a Performance Period with respect to any Performance Compensation Award under this Plan.

(ee) "*Performance Formula*" shall mean, for a Performance Period, the one or more objective formulae applied against the relevant Performance Goal to determine, with regard to the

Performance Compensation Award of a particular Participant, whether all, some portion but less than all, or none of the Performance Compensation Award has been earned for the Performance Period.

(ff) "*Performance Goals*" shall mean, for a Performance Period, the one or more goals established by the Committee for the Performance Period based upon the Performance Criteria.

(gg) "*Performance Period*" shall mean the one or more periods of time, as the Committee may select, over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant's right to, and the payment of, a Performance Compensation Award.

(hh) "*Permitted Transferee*" shall have the meaning set forth in Section 15(b) of this Plan.

(ii) "*Person*" has the meaning given such term in the definition of "Change in Control."

(jj) "*Plan*" means this BioXcel Therapeutics, Inc. 2017 Equity Incentive Plan, as amended from time to time.

(kk) "*Retirement*" means the fulfillment of each of the following conditions: (i) the Participant is in good standing with the Company and/or an Affiliate of the Company as determined by the Committee; (ii) the voluntary termination by a Participant of such Participant's employment or service to the Company and/or an Affiliate and (iii) that at the time of such voluntary termination, the sum of: (A) the Participant's age (calculated to the nearest month, with any resulting fraction of a year being calculated as the number of months in the year divided by 12) and (B) the Participant's years of employment or service with the Company (calculated to the nearest month, with any resulting fraction of a year being calculated as the number of months in the year divided by 12) equals at least 62 (provided that, in any case, the foregoing shall only be applicable if, at the time of such Retirement, the Participant shall be at least 55 years of age and shall have been employed by or served with the Company for no less than five years).

(ll) "*Restricted Period*" means the period of time determined by the Committee during which an Award is subject to restrictions or, as applicable, the period of time within which performance is measured for purposes of determining whether an Award has been earned.

(mm) "*Restricted Stock Unit*" means an unfunded and unsecured promise to deliver Common Shares, cash, other securities or other property, subject to certain restrictions (including, without limitation, a requirement that the Participant remain continuously employed or provide continuous services for a specified period of time), granted under Section 9 of this Plan.

(nn) "*Restricted Stock*" means Common Shares, subject to certain specified restrictions (including, without limitation, a requirement that the Participant remain continuously employed or provide continuous services for a specified period of time), granted under Section 9 of this Plan.

(oo) "*SAR Period*" has the meaning given such term in Section 8(c) of this Plan.

(pp) "*Section 409A*" means Section 409A of the Code (together with all Treasury Regulations, guidance, compliance programs, and other interpretative authority thereunder.

(qq) "*Securities Act*" means the Securities Act of 1933, as amended, and any successor thereto. Reference in this Plan to any section of the Securities Act shall be deemed to include any rules, regulations or other official interpretative guidance issued by any governmental authority under such section, and any amendments or successor provisions to such section, rules, regulations or guidance.

(rr) "*Stock Appreciation Right*" or "*SAR*" means an Award granted under Section 8 of this Plan which meets all of the requirements of Section 1.409A-1(b)(5)(i)(B) of the Treasury Regulations.

(ss) "*Stock Bonus Award*" means an Award granted under Section 10 of this Plan.

(tt) "*Strike Price*" means, except as otherwise provided by the Committee in the case of Substitute Awards, (i) in the case of a SAR granted in tandem with an Option, the Exercise Price of the related Option, or (ii) in the case of a SAR granted independent of an Option, the Fair Market Value of Common Shares on the Date of Grant.

(uu) "*Subsidiary*" means, with respect to any specified Person:

(i) any corporation, association or other business entity of which more than 50% of the total voting power of shares of voting securities (without regard to the occurrence of any contingency and after giving effect to any voting agreement or stockholders' agreement that effectively transfers voting power) is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and

(ii) any partnership or limited liability company (or any comparable foreign entity) (a) the sole general partner or managing member (or functional equivalent thereof) or the managing general partner of which is such Person or Subsidiary of such Person or (b) the only general partners or managing members (or functional equivalents thereof) of which are that Person or one or more Subsidiaries of that Person (or any combination thereof).

(vv) "*Substitute Award*" has the meaning given such term in Section 5(e).

(ww) "*Treasury Regulations*" means any regulations, whether proposed, temporary or final, promulgated by the U.S. Department of Treasury under the Code, and any successor provisions.

3. *Effective Date; Duration*. The Plan shall be effective on August 22, 2017, the date on which it is approved by the stockholders of the Company, which date shall be within twelve (12) months before or after the date of the Plan's adoption by the Board. The expiration date of this Plan, on and after which date no Awards may be granted hereunder, shall be August 21, 2027, the tenth anniversary of the date on which the Plan was approved by the stockholders of the Company; *provided, however*, that such expiration shall not affect Awards then outstanding, and the terms and conditions of this Plan shall continue to apply to such Awards.

4. *Administration.*

(a) The Committee shall administer this Plan. To the extent required to comply with the provisions of Rule 16b-3 promulgated under the Exchange Act (if the Board is not acting as the Committee under this Plan) or necessary to obtain the exception for performance-based compensation under Section 162(m) of the Code, as applicable, it is intended that each member of the Committee shall, at the time he takes any action with respect to an Award under this Plan, be an Eligible Director. However, the fact that a Committee member shall fail to qualify as an Eligible Director shall not

invalidate any Award granted by the Committee that is otherwise validly granted under this Plan. The acts of a majority of the members present at any meeting at which a quorum is present or acts approved in writing by a majority of the Committee shall be deemed the acts of the Committee. Whether a quorum is present shall be determined based on the Committee's charter as approved by the Board.

(b) Subject to the provisions of this Plan and applicable law, the Committee shall have the sole and plenary authority, in addition to other express powers and authorizations conferred on the Committee by this Plan and its charter, to: (i) designate Participants; (ii) determine the type or types of Awards to be granted to a Participant; (iii) determine the number of Common Shares to be covered by, or with respect to which payments, rights, or other matters are to be calculated in connection with, Awards; (iv) determine the terms and conditions of any Award; (v) determine whether, to what extent, and under what circumstances Awards may be settled or exercised in cash, Common Shares, other securities, other Awards or other property, or canceled, forfeited, or suspended, and the method or methods by which Awards may be settled, exercised, canceled, forfeited, or suspended; (vi) determine whether, to what extent, and under what circumstances the delivery of cash, Common Shares, other securities, other Awards or other property and other amounts payable with respect to an Award shall be made; (vii) interpret, administer, reconcile any inconsistency in, settle any controversy regarding, correct any defect in and/or complete any omission in this Plan and any instrument or agreement relating to, or Award granted under, this Plan; (viii) establish, amend, suspend, or waive any rules and regulations and appoint such agents as the Committee shall deem appropriate for the proper administration of this Plan; (ix) accelerate the vesting or exercisability of, payment for or lapse of restrictions on, Awards; and (x) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of this Plan.

(c) The Committee may, by resolution, expressly delegate to a special committee, consisting of one or more directors who may but need not be officers of the Company, the authority, within specified parameters as to the number and types of Awards, to (i) designate officers and/or employees of the Company or any of its Affiliates to be recipients of Awards under this Plan, and (ii) to determine the number of such Awards to be received by any such Participants; provided, however, that such delegation of duties and responsibilities may not be made with respect to grants of Awards to persons (i) subject to Section 16 of the Exchange Act or (ii) who are, or who are reasonably expected to be, "covered employees" for purposes of Section 162(m) of the Code. The acts of such delegates shall be treated as acts of the Committee, and such delegates shall report regularly to the Board and the Committee regarding the delegated duties and responsibilities and any Awards granted.

(d) Unless otherwise expressly provided in this Plan, all designations, determinations, interpretations, and other decisions under or with respect to this Plan or any Award or any documents evidencing Awards granted pursuant to this Plan shall be within the sole discretion of the Committee, may be made at any time and shall be final, conclusive and binding upon all persons or entities, including, without limitation, the Company, any Affiliate, any Participant, any holder or beneficiary of any Award, and any stockholder of the Company.

(e) No member of the Board, the Committee, delegate of the Committee or any employee, advisor or agent of the Company or the Board or the Committee (each such person, an "*Indemnifiable Person*") shall be liable for any action taken or omitted to be taken or any determination made in good faith with respect to this Plan or any Award hereunder. Each Indemnifiable Person shall be indemnified and held harmless by the Company against and from (and the Company shall pay or reimburse on demand for) any loss, cost, liability, or expense (including court costs and attorneys' fees) that may be imposed upon or incurred by such Indemnifiable Person in connection with or resulting from any action, suit or proceeding to which such Indemnifiable Person may be a party or in which such Indemnifiable Person may be involved by reason of any action taken or omitted to be taken under this

Plan or any Award Agreement and against and from any and all amounts paid by such Indemnifiable Person with the Company's approval, in settlement thereof, or paid by such Indemnifiable Person in satisfaction of any judgment in any such action, suit or proceeding against such Indemnifiable Person, provided, that the Company shall have the right, at its own expense, to assume and defend any such action, suit or proceeding and once the Company gives notice of its intent to assume the defense, the Company shall have sole control over such defense with counsel of the Company's choice. The foregoing right of indemnification shall not be available to an Indemnifiable Person to the extent that a final judgment or other final adjudication (in either case not subject to further appeal) binding upon such Indemnifiable Person determines that the acts or omissions of such Indemnifiable Person giving rise to the indemnification claim resulted from such Indemnifiable Person's bad faith, fraud or willful criminal act or omission or that such right of indemnification is otherwise prohibited by law or by the Company's Certificate of Incorporation or Bylaws. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which any such Indemnifiable Person may be entitled under the Company's Certificate of Incorporation or Bylaws, as a matter of law, or otherwise, or any other power that the Company may have to indemnify such Indemnifiable Persons or hold them harmless.

(f) Notwithstanding anything to the contrary contained in this Plan, the Board may, in its sole discretion, at any time and from time to time, grant Awards and administer this Plan with respect to such Awards. In any such case, the Board shall have all the authority granted to the Committee under this Plan.

5. *Grant of Awards; Shares Subject to this Plan; Limitations.*

(a) The Committee may, from time to time, grant Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Stock Bonus Awards and/or Performance Compensation Awards to one or more Eligible Persons. No Participant shall be eligible to receive or accrue dividends or dividend equivalent rights with respect to the Common Shares subject to an unvested Award, including without limitation, an Award of Stock Appreciation Rights or Restricted Stock Units.

(b) Subject to Section 12 of this Plan, the Committee is authorized to deliver under this Plan an aggregate of 12,500 Common Shares.

(c) Common Shares underlying Awards under this Plan that are forfeited, cancelled, expire unexercised, or are settled in cash shall be available again for Awards under this Plan at the same ratio at which they were previously granted. Notwithstanding the foregoing, the following Common Shares shall not be available again for Awards under the Plan: (i) shares tendered or held back upon the exercise of an Option or settlement of an Award to cover the Exercise Price of an Award; (ii) shares that are used or withheld to satisfy tax withholding obligations of the Participant; (iii) shares subject to a Stock Appreciation Right that are not issued in connection with the stock settlement of the SAR upon exercise thereof; and (iv) shares purchased in the open market using proceeds received upon the exercise of an Option.

(d) Common Shares delivered by the Company in settlement of Awards may be authorized and unissued shares, shares held in the treasury of the Company, shares purchased on the open market or by private purchase, or any combination of the foregoing.

(e) Subject to compliance with Section 1.409A-3(f) of the Treasury Regulations, Awards may, in the sole discretion of the Committee, be granted under this Plan in assumption of, or in substitution for, outstanding awards previously granted by an entity acquired by the Company or with which the Company combines ("*Substitute Awards*"). The number of Common Shares underlying any

Substitute Awards shall be counted against the aggregate number of Common Shares available for Awards under this Plan.

(f) Notwithstanding any provision in the Plan to the contrary (but subject to adjustment as provided in Section 12), the Committee shall not grant to any one Eligible Person in any one calendar year Awards (i) for more than 50% of the Available Shares in the aggregate or (ii) payable in cash in an amount exceeding $10,000,000 in the aggregate.

6. *Eligibility*. Participation shall be limited to Eligible Persons who have entered into an Award Agreement or who have received written notification from the Committee, or from a person designated by the Committee, that they have been selected to participate in this Plan.

7. *Options.*

(a) *Generally*. Each Option granted under this Plan shall be evidenced by an Award Agreement (whether in paper or electronic medium (including email or the posting on a web site maintained by the Company or a third party under contract with the Company)). Each Option so granted shall be subject to the conditions set forth in this Section 7, and to such other conditions not inconsistent with this Plan as may be reflected in the applicable Award Agreement. All Options granted under this Plan shall be Nonqualified Stock Options unless the applicable Award Agreement expressly states that the Option is intended to be an Incentive Stock Option. Notwithstanding any designation of an Option, to the extent that the aggregate Fair Market Value of Common Shares with respect to which Options designated as Incentive Stock Options are exercisable for the first time by any Participant during any calendar year (under all plans of the Company or any Subsidiary) exceeds $100,000, such excess Options shall be treated as Nonqualified Stock Options. Incentive Stock Options shall be granted only to Eligible Persons who are employees of the Company, its Subsidiaries and its Affiliates, and no Incentive Stock Option shall be granted to any Eligible Person who is ineligible to receive an Incentive Stock Option under the Code. No Option shall be treated as an Incentive Stock Option unless this Plan has been approved by the stockholders of the Company in a manner intended to comply with the stockholder approval requirements of Section 422(b)(1) of the Code, provided that any Option intended to be an Incentive Stock Option shall not fail to be effective solely on account of a failure to obtain such approval, but rather such Option shall be treated as a Nonqualified Stock Option unless and until such approval is obtained. In the case of an Incentive Stock Option, the terms and conditions of such grant shall be subject to and comply with such rules as may be prescribed by Section 422 of the Code. If for any reason an Option intended to be an Incentive Stock Option (or any portion thereof) shall not qualify as an Incentive Stock Option, then, to the extent of such nonqualification, such Option or portion thereof shall be regarded as a Nonqualified Stock Option appropriately granted under this Plan.

(b) *Exercise Price*. The exercise price ("*Exercise Price*") per Common Share for each Option shall not be less than 100% of the Fair Market Value of such share determined as of the Date of Grant; *provided, however*, that in the case of an Incentive Stock Option granted to an employee who, at the time of the grant of such Option, owns shares representing more than 10% of the voting power of all classes of shares of the Company or any Affiliate,

the Exercise Price per share shall not be less than 110% of the Fair Market Value per share on the Date of Grant; *and, provided further,* that notwithstanding any provision herein to the contrary, the Exercise Price shall not be less than the par value per Common Share.

(c) *Vesting and Expiration*. Options shall vest and become exercisable in such manner and on such date or dates determined by the Committee and as set forth in the applicable Award Agreement, and shall expire after such period, not to exceed ten (10) years from the Date of Grant, as may be determined by the Committee (the "*Option Period*"); *provided, however*, that the Option Period shall

not exceed five (5) years from the Date of Grant in the case of an Incentive Stock Option granted to a Participant who on the Date of Grant owns shares representing more than 10% of the voting power of all classes of shares of the Company or any Affiliate; *and, provided, further*, that notwithstanding any vesting dates set by the Committee, the Committee may, in its sole discretion, accelerate the exercisability of any Option, which acceleration shall not affect the terms and conditions of such Option other than with respect to exercisability. Unless otherwise provided by the Committee in an Award Agreement:

(i) the unvested portion of an Option shall expire upon termination of employment or service of the Participant granted the Option, and the vested portion of such Option shall remain exercisable for:

(A) one year following termination of employment or service by reason of such Participant's death or Disability (with the determination of Disability to be made by the Committee on a case by case basis), or, with respect to an Incentive Stock Option, three (3) months following such termination, but not later than the expiration of the Option Period;

(B) for directors, officers and employees of the Company only, for six (6) months following termination of employment or service by reason of such Participant's Retirement, or, with respect to an Incentive Stock Option, three (3) months following such termination, but not later than the expiration of the Option Period;

(C) ninety (90) days following termination of employment or service for any reason other than such Participant's death, Disability or Retirement, and other than such Participant's termination of employment or service for Cause, but not later than the expiration of the Option Period; and

(ii) both the unvested and the vested portion of an Option shall immediately expire upon the termination of the Participant's employment or service by the Company for Cause.

Notwithstanding the foregoing provisions of Section 7(c) and consistent with the requirements of applicable law, the Committee, in its sole discretion, may extend the post-termination of employment period during which a Participant may exercise vested Options.

(d) *Method of Exercise and Form of Payment*. No Common Shares shall be delivered pursuant to the exercise of an Option until payment in full of the Exercise Price therefor is received by the Company and the Participant has paid to the Company an amount equal to any federal, state, local and/or foreign income and employment taxes required to be withheld. Options that have become exercisable may be exercised by delivery of written or electronic notice of exercise to the Company in accordance with the terms of the Award Agreement accompanied by payment of the Exercise Price. The Exercise Price shall be payable (i) in cash, check (subject to collection), cash equivalent and/or vested Common Shares valued at the Fair Market Value at the time the Option is exercised (including, pursuant to procedures approved by the Committee, by means of attestation of ownership of a sufficient number of Common Shares in lieu of actual delivery of such shares to the Company); *provided, however,* that such Common Shares are not subject to any pledge or other security interest and; (ii) by such other method as the Committee may permit in accordance with applicable law, in its sole discretion, including without limitation: (A) in other property having a fair market value (as determined by the Committee in its discretion) on the date of exercise equal to the Exercise Price or (B) if there is a public market for the Common Shares at such time, by means of a broker-assisted "cashless exercise" pursuant to which the Company is delivered a copy of irrevocable instructions to a stockbroker to sell the Common Shares otherwise deliverable upon the exercise of the Option and to deliver promptly to the Company an amount equal to the Exercise Price or

(C) by a "net exercise" method whereby the Company withholds from the delivery of the Common Shares for which the Option was exercised that number of Common Shares having a Fair Market Value equal to the aggregate Exercise Price for the Common Shares for which the Option was exercised. Any fractional Common Shares shall be settled in cash.

(e) *Notification upon Disqualifying Disposition of an Incentive Stock Option*. Each Participant awarded an Incentive Stock Option under this Plan shall notify the Company in writing immediately after the date he makes a disqualifying disposition of any Common Shares acquired pursuant to the exercise of such Incentive Stock Option. A disqualifying disposition is any disposition (including, without limitation, any sale) of such Common Shares before the later of (A) two years after the Date of Grant of the Incentive Stock Option or (B) one year after the date of exercise of the Incentive Stock Option. The Company may, if determined by the Committee and in accordance with procedures established by the Committee, retain possession of any Common Shares acquired pursuant to the exercise of an Incentive Stock Option as agent for the applicable Participant until the end of the period described in the preceding sentence.

(f) *Compliance with Laws, etc*. Notwithstanding the foregoing, in no event shall a Participant be permitted to exercise an Option in a manner that the Committee determines would violate the Sarbanes-Oxley Act of 2002, if applicable, or any other applicable law or the applicable rules and regulations of the Securities and Exchange Commission or the applicable rules and regulations of any securities exchange or inter-dealer quotation system on which the securities of the Company are listed or traded.

8. *Stock Appreciation Rights.*

(a) *Generally*. Each SAR granted under this Plan shall be evidenced by an Award Agreement (whether in paper or electronic medium (including email or the posting on a web site maintained by the Company or a third party under contract with the Company)). Each SAR so granted shall be subject to the conditions set forth in this Section 8, and to such other conditions not inconsistent with this Plan as may be reflected in the applicable Award

Agreement. Any Option granted under this Plan may include tandem SARs (i.e., SARs granted in conjunction with an Award of Options under this Plan). The Committee also may award SARs to Eligible Persons independent of any Option.

(b) *Exercise Price*. The Exercise Price per Common Share for each Option granted in connection with a SAR shall not be less than 100% of the Fair Market Value of such share determined as of the Date of Grant.

(c) *Vesting and Expiration.* A SAR granted in connection with an Option shall become exercisable and shall expire according to the same vesting schedule and expiration provisions as the corresponding Option. A SAR granted independent of an Option shall vest and become exercisable and shall expire in such manner and on such date or dates determined by the Committee and shall expire after such period, not to exceed ten years, as may be determined by the Committee (the "*SAR Period*"); *provided, however*, that notwithstanding any vesting dates set by the Committee, the Committee may, in its sole discretion, accelerate the exercisability of any SAR, which acceleration shall not affect the terms and conditions of such SAR other than with respect to exercisability. Unless otherwise provided by the Committee in an Award Agreement:

(i) the unvested portion of a SAR shall expire upon termination of employment or service of the Participant granted the SAR, and the vested portion of such SAR shall remain exercisable for:

(A) one year following termination of employment or service by reason of such Participant's death or Disability (with the determination of Disability to be made by the Committee on a case by case basis), but not later than the expiration of the SAR Period;

(B) for directors, officers and employees of the Company only, for six (6) months following termination of employment or service by reason of such Participant's Retirement, but not later than the expiration of the SAR Period;

(C) ninety (90) days following termination of employment or service for any reason other than such Participant's death, Disability or Retirement, and other than such Participant's termination of employment or service for Cause, but not later than the expiration of the SAR Period; and

(ii) both the unvested and the vested portion of a SAR shall expire immediately upon the termination of the Participant's employment or service by the Company for Cause.

(d) *Method of Exercise*. SARs that have become exercisable may be exercised by delivery of written or electronic notice of exercise to the Company in accordance with the terms of the Award, specifying the number of SARs to be exercised and the date on which such SARs were awarded. Notwithstanding the foregoing, if on the last day of the Option Period (or in the case of a SAR independent of an Option, the SAR Period), the Fair Market Value exceeds the Strike Price, the Participant has not exercised the SAR or the corresponding Option (if applicable), and neither the SAR nor the corresponding Option (if applicable) has expired, such SAR shall be deemed to have been exercised by the Participant on such last day and the Company shall make the appropriate payment therefor.

(e) *Payment*. Upon the exercise of a SAR, the Company shall pay to the Participant an amount equal to the number of Common Shares subject to the SAR that are being exercised multiplied by the excess, if any, of the Fair Market Value of one Common Share on the exercise date over the Strike Price, less an amount equal to any federal, state, local and non-U.S. income and employment taxes required to be withheld. The Company shall pay such amount in cash, in Common Shares valued at Fair Market Value, or any combination thereof, as determined by the Committee. Any fractional Common Share shall be settled in cash.

9. *Restricted Stock and Restricted Stock Units.*

(a) *Generally*. Each grant of Restricted Stock and Restricted Stock Units shall be evidenced by an Award Agreement (whether in paper or electronic medium (including email or the posting on a web site maintained by the Company or a third party under contract with the Company)). Each such grant shall be subject to the conditions set forth in this Section 9, and to such other conditions not inconsistent with this Plan as may be reflected in the applicable Award Agreement. Restricted Stock and Restricted Stock Units shall be subject to such restrictions on transferability and other restrictions as the Committee may impose (including, for example, that holders of Restricted Stock may not vote or receive dividends on the Restricted Stock). These restrictions may lapse separately or in combination at such times, under such circumstances, in such installments, upon the satisfaction of Performance Goals or otherwise, as the Committee determines at the time of the grant of an Award or thereafter. Except as otherwise provided in an Award Agreement, a Participant shall have none of the rights of a stockholder with respect to Restricted Stock Units until such time as Common Shares are paid in settlement of such Awards.

(b) *Restricted Accounts; Escrow or Similar Arrangement*. Unless otherwise determined by the Committee, upon the grant of Restricted Stock, a book entry in a restricted account shall be established in the Participant's name at the Company's transfer agent and, if the Committee determines that the Restricted Stock shall be held by the Company or in escrow rather than held in such restricted account pending the release of the applicable restrictions, the Committee may require the Participant to additionally execute and deliver to the Company (i) an escrow agreement satisfactory to the Committee, if applicable, and (ii) the appropriate share power (endorsed in blank) with respect to the Restricted Stock covered by such agreement. If a Participant shall fail to execute an agreement evidencing an Award of Restricted Stock and, if applicable, an escrow agreement and blank share power within the amount of time specified by the Committee, the Award shall be null and void *ab initio*. No Participant shall have voting rights with respect to any Awards of Restricted Stock. A Participant holding Restricted Stock granted hereunder shall not have the right to receive dividends on the Restricted Stock during the Restriction Period. To the extent shares of Restricted Stock are forfeited, any share certificates issued to the Participant evidencing such shares shall be returned to the Company, and all rights of the Participant to such shares and as a stockholder with respect thereto shall terminate without further obligation on the part of the Company.

(c) *Vesting; Acceleration of Lapse of Restrictions*. Unless otherwise provided by the Committee in an Award Agreement, the unvested portion of Restricted Stock and Restricted Stock Units shall terminate and be forfeited upon the termination of employment or service of the Participant granted the applicable Award.

(d) *Delivery of Restricted Stock and Settlement of Restricted Stock Units*. (i) Upon the expiration of the Restricted Period with respect to any shares of Restricted Stock, the restrictions set forth in the applicable Award Agreement shall be of no further force or effect with respect to such shares, except as set forth in the applicable Award Agreement. If an escrow arrangement is used, upon such expiration, the Company shall deliver to the Participant, or his beneficiary, without charge, the share certificate evidencing the shares of Restricted Stock that have not then been forfeited and with respect to which the Restricted Period has expired (rounded down to the nearest full share).

(ii) Unless otherwise provided by the Committee in an Award Agreement, upon the expiration of the Restricted Period with respect to any outstanding Restricted Stock Units, the Company shall deliver to the Participant, or his beneficiary, without charge, one Common Share for each such outstanding Restricted Stock Unit; *provided*, *however*, that the Committee may, in its sole discretion and subject to the requirements of Section 409A, elect to (i) pay cash or part cash and part Common Share in lieu of delivering only Common Shares in respect of such Restricted Stock Units or (ii) defer the delivery of Common Shares (or cash or part Common Shares and part cash, as the case may be) beyond the expiration of the Restricted Period if such delivery would result in a violation of applicable law until such time as is no longer the case. If a cash payment is made in lieu of delivering Common Shares, the amount of such payment shall be equal to the Fair Market Value of the Common Shares as of the date on which the Restricted Period lapsed with respect to such Restricted Stock Units, less an amount equal to any federal, state, local and non-U.S. income and employment taxes required to be withheld.

10. *Stock Bonus Awards*. The Committee may issue unrestricted Common Shares, or other Awards denominated in Common Shares, under this Plan to Eligible Persons, either alone or in tandem with other awards, in such amounts as the Committee shall from time to time in its sole discretion determine. Each Stock Bonus Award granted under this Plan shall be evidenced by an Award Agreement (whether in paper or electronic medium (including email or the posting on a web site maintained by the Company or a third party under contract with the Company)). Each Stock Bonus Award so granted shall be subject to such conditions not inconsistent with this Plan as may be reflected in the applicable Award Agreement.

11. *Performance Compensation Awards.*

(a) *Generally*. The provisions of the Plan are intended to enable Options and Stock Appreciation Rights granted hereunder to certain Eligible Persons to qualify for an exemption under Section 162(m) of the Code. The Committee shall have the authority, at the time of grant of any Award described in Sections 7 through 10 of this Plan, to designate such Award as a Performance Compensation Award intended to qualify as "performance-based compensation" under Section 162(m) of the Code. The Committee shall have the authority to make an award of a cash bonus to any Participant and designate such Award as a Performance Compensation Award intended to qualify as "performance-based compensation" under Section 162(m) of the Code.

(b) *Discretion of Committee with Respect to Performance Compensation Awards*. With regard to a particular Performance Period, the Committee shall have sole discretion to select the length of such Performance Period, the type(s) of Performance Compensation Awards to be issued, the Performance Criteria that will be used to establish the Performance Goal(s), the kind(s) and/or level(s) of the Performance Goals(s) that is (are) to apply and the Performance Formula. Within the first 90 calendar days of a Performance Period (or, if longer or shorter, within the maximum period allowed under Section 162(m) of the Code, if applicable), the Committee shall, with regard to the Performance Compensation Awards to be issued for such Performance Period, exercise its discretion with respect to each of the matters enumerated in the immediately preceding sentence and record the same in writing.

(c) *Performance Criteria*. The Performance Criteria that will be used to establish the Performance Goal(s) shall be based on the attainment of specific levels of performance of the Company and/or one or more Affiliates, divisions or operational units, or any combination of the foregoing, as determined by the Committee, which criteria may be based on one or more of the following business criteria: (i) revenue; (ii) sales; (iii) profit (net profit, gross profit, operating profit, economic profit, profit margins or other corporate profit measures); (iv) earnings (EBIT, EBITDA, earnings per share, or other corporate earnings measures); (v) net income (before or after taxes, operating income or other income measures); (vi) cash (cash flow, cash generation or other cash measures); (vii) stock price or performance; (viii) total stockholder return (stock price appreciation plus reinvested dividends divided by beginning share price); (ix) economic value added; (x) return measures (including, but not limited to, return on assets, capital, equity, investments or sales, and cash flow return on assets, capital, equity, or sales); (xi) market share; (xii) improvements in capital structure; (xiii) expenses (expense management, expense ratio, expense efficiency ratios or other expense measures); (xiv) business expansion or consolidation (acquisitions and divestitures); (xv) internal rate of return or increase in net present value; (xvi) working capital targets relating to inventory and/or accounts receivable; (xvii) inventory management; (xviii) service or product delivery or quality; (xix) customer satisfaction; (xx) employee retention; (xxi) safety standards; (xxii) productivity measures; (xxiii) cost reduction measures; and/or (xxiv) strategic plan development and implementation. Any one or more of the Performance Criteria adopted by the Committee may be used on an absolute or relative basis to measure the performance of the Company and/or one or more Affiliates as a whole or any business unit(s) of the Company and/or one or more Affiliates or any combination thereof, as the Committee may deem appropriate, or any of the above Performance Criteria may be compared to the performance of a selected group of comparison companies, or a published or special index that the Committee, in its sole discretion, deems appropriate, or as compared to various stock market indices. The Committee also has the authority to provide for accelerated vesting of any Award based on the achievement of Performance Goals pursuant to the Performance Criteria specified in this paragraph. To the extent required under Section 162(m) of the Code, the Committee shall, within the first 90 calendar days of a Performance Period (or, if longer or shorter, within the maximum period allowed under Section 162(m) of the Code), define in an objective fashion the manner of calculating the Performance Criteria it selects to use for such Performance Period and thereafter promptly communicate such Performance Criteria to the Participant.

(d) *Modification of Performance Goal(s)*. In the event that applicable tax and/or securities laws change to permit Committee discretion to alter the governing Performance Criteria without obtaining stockholder approval of such alterations, the Committee shall have sole discretion to make such alterations without obtaining stockholder approval. The Committee is authorized at any time during the first 90 calendar days of a Performance Period (or, if longer or shorter, within the maximum period allowed under Section 162(m) of the Code, if applicable), or at any time thereafter to the extent the exercise of such authority at such time would not cause the Performance Compensation Awards granted to any Participant for such Performance Period to fail to qualify as "performance-based compensation" under Section 162(m) of the Code, in its sole discretion, to adjust or modify the calculation of a Performance Goal for such Performance Period, based on and in order to appropriately reflect the following events: (i) asset write-downs; (ii) litigation or claim judgments or settlements; (iii) the effect of changes in tax laws, accounting principles, or other laws or regulatory rules affecting reported results; (iv) any reorganization and restructuring programs; (v) extraordinary nonrecurring items as described in Accounting Principles Board Opinion No. 30 (or any successor pronouncement thereto) and/or in management's discussion and analysis of financial condition and results of operations appearing in the Company's annual

report to stockholders for the applicable year; (vi) acquisitions or divestitures; (vii) any other specific unusual or nonrecurring events, or objectively determinable category thereof; (viii) foreign exchange gains and losses; and (ix) a change in the Company's fiscal year.

(e) *Payment of Performance Compensation Awards*.

(i) *Condition to Receipt of Payment*. Unless otherwise provided in the applicable Award Agreement, a Participant must be employed by, or in service to, the Company on the last day of a Performance Period to be eligible for payment in respect of a Performance Compensation Award for such Performance Period.

(ii) *Limitation*. A Participant shall be eligible to receive payment in respect of a Performance Compensation Award only to the extent that: (A) the Performance Goals for such period are achieved; and (B) all or some of the portion of such Participant's Performance Compensation Award has been earned for the Performance Period based on the application of the Performance Formula to such achieved Performance Goals.

(iii) *Certification*. Following the completion of a Performance Period, the Committee shall review and certify in writing whether, and to what extent, the Performance Goals for the Performance Period have been achieved and, if so, calculate and certify in writing that amount of the Performance Compensation Awards earned for the period based upon the Performance Formula. The Committee shall then determine the amount of each Participant's Performance Compensation Award actually payable for the Performance Period and, in so doing, may apply Negative Discretion.

(iv) *Use of Negative Discretion*. In determining the actual amount of an individual Participant's Performance Compensation Award for a Performance Period, the Committee may reduce or eliminate the amount of the Performance Compensation Award earned under the Performance Formula in the Performance Period through the use of Negative Discretion if, in its sole judgment, such reduction or elimination is appropriate. The Committee shall not have the discretion, except as is otherwise provided in this Plan, to (A) grant or provide payment in respect of Performance Compensation Awards for a Performance Period if the Performance Goals for such Performance Period have not been attained; or (B) increase a Performance Compensation Award above the applicable limitations set forth in Section 5 of this Plan.

(f) *Timing of Award Payments*. Performance Compensation Awards granted for a Performance Period shall be paid to Participants as soon as administratively practicable following

completion of the certifications required by this Section 11, but in no event later than two-and-one-half months following the end of the fiscal year during which the Performance Period is completed in order to comply with the short-term deferral rules under Section 1.409A-1(b)(4) of the Treasury Regulations. Notwithstanding the foregoing, payment of a Performance Compensation Award may be delayed, as permitted by Section 1.409A-2(b)(7)(i) of the Treasury Regulations, to the extent that the Company reasonably anticipates that if such payment were made as scheduled, the Company's tax deduction with respect to such payment would not be permitted due to the application of Section 162(m) of the Code.

12. *Changes in Capital Structure and Similar Events*. In the event of (a) any dividend or other distribution (whether in the form of cash, Common Shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, merger, amalgamation, consolidation, split-up, split-off, combination, repurchase or exchange of Common Shares or other securities of the Company, issuance of warrants or other rights to acquire Common Shares or other securities of the Company, or other similar corporate transaction or event (including, without limitation, a Change in Control) that affects the Common Shares, or (b) unusual or nonrecurring events (including, without limitation, a Change in Control) affecting the Company, any Affiliate, or the financial statements of the Company or any Affiliate, or changes in applicable rules, rulings, regulations or other requirements of any governmental body or securities exchange or inter-dealer quotation system, accounting principles or law, such that in either case an adjustment is determined by the Committee in its sole discretion to be necessary or appropriate in order to prevent dilution or enlargement of rights, then the Committee shall make any such adjustments that are equitable, including, without limitation, adjusting any or all of (A) the number of Common Shares or other securities of the Company (or number and kind of other securities or other property) that may be delivered in respect of Awards or with respect to which Awards may be granted under this Plan (including, without limitation, adjusting any or all of the limitations under Section 5 of this Plan) and (B) the terms of any outstanding Award, including, without limitation, (1) the number of Common Shares or other securities of the Company (or number and kind of other securities or other property) subject to outstanding Awards or to which outstanding Awards relate, (2) the Exercise Price or Strike Price with respect to any Award or (3) any applicable performance measures (including, without limitation, Performance Criteria and Performance Goals). All adjustments shall be made in good faith compliance with Section 409A.

13. *Effect of Change in Control*. Upon the occurrence of a Change in Control, unless otherwise specifically prohibited under applicable laws or by the rules and regulations of any governing governmental agencies or national securities exchanges, or unless the Committee shall specify otherwise in the Award Agreement, the Committee is authorized (but not obligated) to make any of the following adjustments (or any combination thereof) in the terms and conditions of outstanding Awards: (a) continuation or assumption of such outstanding Awards under the Plan by the Company (if it is the surviving company or corporation) or by the surviving company or corporation or its parent; (b) substitution by the surviving company or corporation or its parent of equity, equity-based and/or cash awards with substantially the same terms for outstanding Awards (excluding the security deliverable upon settlement of the Awards), including, in the case of Options, substitution by the surviving company or corporation or its parent of restricted stock or other equity, which may be subject to substantially the same vesting and/or forfeiture terms as such Options, in an amount equal to the intrinsic value of such Options; (c) accelerated exercisability, vesting and/or lapse of restrictions under outstanding Awards immediately prior to the occurrence of such event; (d) upon written notice, provide that any outstanding Awards must be exercised, to the extent then exercisable, during a reasonable period of time immediately prior to the scheduled consummation of the event or such other period as determined by the Committee (contingent upon the consummation of the event), and at the end of such period, such Awards shall terminate to the extent not so exercised within the relevant period; and (e) cancellation of all or any portion of outstanding Awards for fair value (in the form of cash, Common Shares, other property or any combination thereof) as determined in the sole discretion of the Committee and which value may be zero; provided, that, in the

case of Options and Stock Appreciation Rights or similar Awards, (x) such fair value may equal the excess, if any, of the value of the consideration to be paid in the Change in Control transaction to holders of the same number of Common Shares subject to such Awards (or, if no such consideration is paid, the Fair Market Value of the Common Shares subject to such outstanding Awards or portion thereof being canceled) over the aggregate Exercise Price or Strike Price,

as applicable, with respect to such Awards or the portion thereof being canceled (or if no such excess, zero), and (y) to the extent that the Options, Stock Appreciation Rights or similar Awards are not then vested, such excess may be paid in restricted stock or other equity, which may be subject to substantially the same vesting and/or forfeiture terms as such Options, Stock Appreciation Rights or similar awards, in an amount equal to the intrinsic value of such Options, Stock Appreciation Rights or similar Awards.

14. *Amendments and Termination.*

(a) *Amendment and Termination of this Plan*. The Board may amend, alter, suspend, discontinue, or terminate this Plan or any portion thereof at any time; provided, that (i) no amendment to the definition of Eligible Person in Section 2(q), Section 5(b), Section 11(c) or Section 14(b) (to the extent required by the proviso in such Section 14(b)) shall be made without stockholder approval and (ii) no such amendment, alteration, suspension, discontinuation or termination shall be made without stockholder approval if such approval is necessary to comply with any tax or regulatory requirement applicable to this Plan (including, without limitation, as necessary to comply with any rules or requirements of any national securities exchange or inter-dealer quotation system on which the Common Shares may be listed or quoted or to prevent the Company from being denied a tax deduction under Section 162(m) of the Code); *and, provided, further*, that any such amendment, alteration, suspension, discontinuance or termination that would materially and adversely affect the rights of any Participant or any holder or beneficiary of any Award theretofore granted shall not to that extent be effective without the prior written consent of the affected Participant, holder or beneficiary.

(b) *Amendment of Award Agreements*. The Committee may, to the extent consistent with the terms of any applicable Award Agreement, waive any conditions or rights under, amend any terms of, or alter, suspend, discontinue, cancel or terminate, any Award theretofore granted or the associated Award Agreement, prospectively or retroactively; *provided, however* that any such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination that would materially and adversely affect the rights of any Participant with respect to any Award theretofore granted shall not to that extent be effective without the consent of the affected Participant.

(c) *Prohibition on Repricing.* Subject to Section 5, the Committee shall not, without the approval of the stockholders of the Company (i) reduce the exercise price, or cancel and reissue options so as to in effect reduce the exercise price or (ii) change the manner of determining the exercise price so that the exercise price is less than the fair market value per share of Common Stock.

15. *General*.

(a) *Award Agreements*. Each Award under this Plan shall be evidenced by an Award Agreement, which shall be delivered to the Participant (whether in paper or electronic medium (including email or the posting on a web site maintained by the Company or a third party under contract with the Company)) and shall specify the terms and conditions of the Award and any rules applicable thereto, including without limitation, the effect on such Award of the death, Disability or termination of employment or service of a Participant, or of such other events as may be determined by the Committee. The Company's failure to specify any term of any Award in any particular Award Agreement shall not invalidate such term, provided such terms was duly adopted by the Board or the Committee.

(b) *Non-transferability; Trading Restrictions.*

(i) Each Award shall be exercisable only by a Participant during the Participant's lifetime, or, if permissible under applicable law, by the Participant's legal guardian or representative. No Award may be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by a Participant other than by will or by the laws of descent and distribution and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company or an Affiliate; provided that the designation of a beneficiary shall not constitute an assignment, alienation, pledge, attachment, sale, transfer or encumbrance.

(ii) Notwithstanding the foregoing, the Committee may, in its sole discretion, permit Awards (other than Incentive Stock Options) to be transferred by a Participant, with or without consideration, subject to such rules as the Committee may adopt consistent with any applicable Award Agreement to preserve the purposes of this Plan, to: (A) any person who is a "family member" of the Participant, as such term is used in the instructions to Form S-8 under the Securities Act (collectively, the "*Immediate Family Members*"); (B) a trust solely for the benefit of the Participant and his or her Immediate Family Members; or (C) a partnership or limited liability company whose only partners or stockholders are the Participant and his or her Immediate Family Members; or (D) any other transferee as may be approved either (I) by the Board or the Committee in its sole discretion, or (II) as provided in the applicable Award Agreement (each transferee described in clauses (A), (B), (C) and (D) above is hereinafter referred to as a "*Permitted Transferee*"); provided, that the Participant gives the Committee advance written notice describing the terms and conditions of the proposed transfer and the Committee notifies the Participant in writing that such a transfer would comply with the requirements of this Plan.

(iii) The terms of any Award transferred in accordance with subparagraph (ii) above shall apply to the Permitted Transferee and any reference in this Plan, or in any applicable Award Agreement, to a Participant shall be deemed to refer to the Permitted Transferee, except that (A) Permitted Transferees shall not be entitled to transfer any Award, other than by will or the laws of descent and distribution; (B) Permitted Transferees shall not be entitled to exercise any transferred Option unless there shall be in effect a registration statement on an appropriate form covering the Common Shares to be acquired pursuant to the exercise of such Option if the Committee determines, consistent with any applicable Award Agreement, that such a registration statement is necessary or appropriate; (C) the Committee or the Company shall not be required to provide any notice to a Permitted Transferee, whether or not such notice is or would otherwise have been required to be given to the Participant under this Plan or otherwise; and (D) the consequences of the termination of the Participant's employment by, or services to, the Company or an Affiliate under the terms of this Plan and the applicable Award Agreement shall continue to be applied with respect to the Participant, including, without limitation, that an Option shall be exercisable by the Permitted Transferee only to the extent, and for the periods, specified in this Plan and the applicable Award Agreement.

(iv) The Committee shall have the right, either on an Award-by-Award basis or as a matter of policy for all Awards or one or more classes of Awards, to condition the delivery of vested Common Shares received in connection with such Award on the Participant's agreement to such restrictions as the Committee may determine.

(c) *Tax Withholding.*

(i) A Participant shall be required to pay to the Company or any Affiliate, or the Company or any Affiliate shall have the right and is hereby authorized to withhold, from any cash, Common Shares, other securities or other property deliverable under any Award or from any compensation or other amounts owing to a Participant, the amount (in cash, Common Shares, other

securities or other property) of any required withholding taxes in respect of an Award, its exercise, or any payment or transfer under an Award or under this Plan and to take such other action as may be necessary in the opinion of the Committee or the Company to satisfy all obligations for the payment of such withholding and taxes. In addition, the Committee, in its discretion, may make arrangements mutually agreeable with a Participant who is not an employee of the Company or an Affiliate to facilitate the payment of applicable income and self-employment taxes.

(ii) Without limiting the generality of clause (i) above, the Committee may, in its sole discretion, permit a Participant to satisfy, in whole or in part, the foregoing withholding liability by (A) the delivery of Common Shares (which are not subject to any pledge or other security interest) owned by the Participant having a fair market value equal to such withholding liability or (B) having the Company withhold from the number of Common Shares otherwise issuable or deliverable pursuant to the exercise or settlement of the Award a number of shares with a fair market value equal to such withholding liability (but no more than the minimum required statutory withholding liability).

(d) *No Claim to Awards; No Rights to Continued Employment; Waiver*. No employee of the Company or an Affiliate, or other person, shall have any claim or right to be granted an Award under this Plan or, having been selected for the grant of an Award, to be selected for a grant of any other Award. There is no obligation for uniformity of treatment of Participants or holders or beneficiaries of Awards. The terms and conditions of Awards and the Committee's determinations and interpretations with respect thereto need not be the same with respect to each Participant and may be made selectively among Participants, whether or not such Participants are similarly situated. Neither this Plan nor any action taken hereunder shall be construed as giving any Participant any right to be retained in the employ or service of the Company or an Affiliate, nor shall it be construed as giving any Participant any rights to continued service on the Board. The Company or any of its Affiliates may at any time dismiss a Participant from employment or discontinue any consulting relationship, free from any liability or any claim under this Plan, unless otherwise expressly provided in this Plan or any Award Agreement. By accepting an Award under this Plan, a Participant shall thereby be deemed to have waived any claim to continued exercise or vesting of an Award or to damages or severance entitlement related to non-continuation of the Award beyond the period provided under this Plan or any Award Agreement, notwithstanding any provision to the contrary in any written employment contract or other agreement between the Company and its Affiliates and the Participant, whether any such agreement is executed before, on or after the Date of Grant.

(e) *International Participants*. With respect to Participants who reside or work outside of the United States of America and who are not (and who are not expected to be) "covered employees" within the meaning of Section 162(m) of the Code, the Committee may in its sole discretion amend the terms of this Plan or outstanding Awards (or establish a sub-plan) with respect to such Participants in order to conform such terms with the requirements of local law or to obtain more favorable tax or other treatment for such Participants, the Company or its Affiliates.

(f) *Designation and Change of Beneficiary*. Each Participant may file with the Committee a written designation of one or more persons as the beneficiary(ies) who shall be entitled to receive the amounts payable with respect to an Award, if any, due under this Plan upon his or her death. A Participant may, from time to time, revoke or change his or her beneficiary designation without the consent of any prior beneficiary by filing a new designation with the Committee. The last such designation filed with the Committee shall be controlling; *provided, however*, that no designation, or change or revocation thereof, shall be effective unless received by the Committee prior to the Participant's death, and in no event shall it be effective as of a date prior to such receipt. If no beneficiary designation is filed by a Participant, the beneficiary shall be deemed to be his or her spouse or, if the Participant is unmarried at the time of death, his or her estate. Upon the occurrence of a Participant's

divorce (as evidenced by a final order or decree of divorce), any spousal designation previously given by such Participant shall automatically terminate.

(g) *Termination of Employment/Service*. Unless determined otherwise by the Committee at any point following such event: (i) neither a temporary absence from employment or service due to illness, vacation or leave of absence nor a transfer from employment or service with the Company to employment or service with an Affiliate (or vice-versa) shall be considered a termination of employment or service with the Company or an Affiliate; and (ii) if a Participant's employment with the Company and its Affiliates terminates, but such Participant continues to provide services to the Company and its Affiliates in a non-employee capacity (or vice-versa), such change in status shall not be considered a termination of employment with the Company or an Affiliate for purposes of this Plan unless the Committee, in its discretion, determines otherwise.

(h) *No Rights as a Stockholder*. Except as otherwise specifically provided in this Plan or any Award Agreement, no person shall be entitled to the privileges of ownership in respect of Common Shares that are subject to Awards hereunder until such shares have been issued or delivered to that person.

(i) *Government and Other Regulations*.

(i) The obligation of the Company to settle Awards in Common Shares or other consideration shall be subject to all applicable laws, rules, and regulations, and to such approvals by governmental agencies as may be required. Notwithstanding any terms or conditions of any Award to the contrary, the Company shall be under no obligation to offer to sell or to sell, and shall be prohibited from offering to sell or selling, any Common Shares pursuant to an Award unless such shares have been properly registered for sale pursuant to the Securities Act with the Securities and Exchange Commission or unless the Company has received an opinion of counsel, satisfactory to the Company, that such shares may be offered or sold without such registration pursuant to an available exemption therefrom and the terms and conditions of such exemption have been fully complied with. The Company shall be under no obligation to register for sale under the Securities Act any of the Common Shares to be offered or sold under this Plan. The Committee shall have the authority to provide that all certificates for Common Shares or other securities of the Company or any Affiliate delivered under this Plan shall be subject to such stop transfer orders and other restrictions as the Committee may deem advisable under this Plan, the applicable Award Agreement, the federal securities laws, or the rules, regulations and other requirements of the Securities and Exchange Commission, any securities exchange or inter-dealer quotation system upon which such shares or other securities are then listed or quoted and any other applicable federal, state, local or non-U.S. laws, and, without limiting the generality of Section 9 of this Plan, the Committee may cause a legend or legends to be put on any such certificates to make

appropriate reference to such restrictions. Notwithstanding any provision in this Plan to the contrary, the Committee reserves the right to add any additional terms or provisions to any Award granted under this Plan that it in its sole discretion deems necessary or advisable in order that such Award complies with the legal requirements of any governmental entity to whose jurisdiction the Award is subject.

(ii) The Committee may cancel an Award or any portion thereof if it determines, in its sole discretion, that legal or contractual restrictions and/or blockage and/or other market considerations would make the Company's acquisition of Common Shares from the public markets, the Company's issuance of Common Shares to the Participant, the Participant's acquisition of Common Shares from the Company and/or the Participant's sale of Common Shares to the public markets, illegal, impracticable or inadvisable. If the Committee determines to cancel all or any portion of an Award in accordance with the foregoing, unless doing so would violate Section 409A, the Company shall pay to the Participant an amount equal to the excess of (A) the aggregate Fair Market Value of the Common Shares

subject to such Award or portion thereof canceled (determined as of the applicable exercise date, or the date that the shares would have been vested or delivered, as applicable), over (B) the aggregate Exercise Price or Strike Price (in the case of an Option or SAR, respectively) or any amount payable as a condition of delivery of Common Shares (in the case of any other Award). Such amount shall be delivered to the Participant as soon as practicable following the cancellation of such Award or portion thereof. The Committee shall have the discretion to consider and take action to mitigate the tax consequence to the Participant in cancelling an Award in accordance with this clause.

(j) *Payments to Persons Other Than Participants*. If the Committee shall find that any person to whom any amount is payable under this Plan is unable to care for his affairs because of illness or accident, or is a minor, or has died, then any payment due to such person or his estate (unless a prior claim therefor has been made by a duly appointed legal representative) may, if the Committee so directs the Company, be paid to his spouse, child, relative, an institution maintaining or having custody of such person, or any other person deemed by the Committee to be a proper recipient on behalf of such person otherwise entitled to payment. Any such payment shall be a complete discharge of the liability of the Committee and the Company therefor.

(k) *Non exclusivity of this Plan*. Neither the adoption of this Plan by the Board nor the submission of this Plan to the stockholders of the Company for approval shall be construed as creating any limitations on the power of the Board to adopt such other incentive arrangements as it may deem desirable, including, without limitation, the granting of stock options or other equity-based awards otherwise than under this Plan, and such arrangements may be either applicable generally or only in specific cases.

(l) *No Trust or Fund Created*. Neither this Plan nor any Award shall create or be construed to create a trust or separate fund of any kind or a fiduciary relationship between the Company or any Affiliate, on the one hand, and a Participant or other person or entity, on the other hand. No provision of this Plan or any Award shall require the Company, for the purpose of satisfying any obligations under this Plan, to purchase assets or place any assets in a trust or other entity to which contributions are made or otherwise to segregate any assets, nor shall the Company maintain separate bank accounts, books, records or other evidence of the existence of a segregated or separately maintained or administered fund for such purposes. Participants shall have no rights under this Plan other than as general unsecured creditors of the Company, except that insofar as they may have become entitled to payment of additional compensation by performance of services, they shall have the same rights as other employees under general law.

(m) *Reliance on Reports*. Each member of the Committee and each member of the Board shall be fully justified in acting or failing to act, as the case may be, and shall not be liable for having so acted or failed to act in good faith, in reliance upon any report made by the independent public accountant of the Company and/or its Affiliates and/or any other information furnished in connection with this Plan by any agent of the Company or the Committee or the Board, other than himself.

(n) *Relationship to Other Benefits*. No payment under this Plan shall be taken into account in determining any benefits under any pension, retirement, profit sharing, group insurance or other benefit plan of the Company except as otherwise specifically provided in such other plan.

(o) *Governing Law*. The provisions of this Plan shall be governed by and construed in accordance with the laws of the State of Delaware without regard to its conflicts of laws principles.

(p) *Severability*. If any provision of this Plan or any Award or Award Agreement is or becomes or is deemed to be invalid, illegal, or unenforceable in any jurisdiction or as to any person or

entity or Award, or would disqualify this Plan or any Award under any law deemed applicable by the Committee, such provision shall be construed or deemed amended to conform to the applicable laws in the manner that most closely reflects the original intent of the Award or the Plan, or if it cannot be construed or deemed amended without, in the determination of the Committee, materially altering the intent of this Plan or the Award, such provision shall be construed or deemed stricken as to such jurisdiction, person or entity or Award and the remainder of this Plan and any such Award shall remain in full force and effect.

(q) *Obligations Binding on Successors*. The obligations of the Company under this Plan shall be binding upon any successor corporation or organization resulting from the merger, amalgamation, consolidation or other reorganization of the Company, or upon any successor corporation or organization succeeding to substantially all of the assets and business of the Company.

(r) *Code Section 162(m) Approval*. If so determined by the Committee, the provisions of this Plan regarding Performance Compensation Awards shall be disclosed and reapproved by stockholders no later than the first stockholder meeting that occurs in the fifth year following the year in which stockholders previously approved such provisions, in each case in order for certain Awards granted after such time to be exempt from the deduction limitations of Section 162(m) of the Code. Nothing in this clause, however, shall affect the validity of Awards granted after such time if such stockholder approval has not been obtained.

(s) *Expenses; Gender; Titles and Headings*. The expenses of administering this Plan shall be borne by the Company and its Affiliates. Masculine pronouns and other words of masculine gender shall refer to both men and women. The titles and headings of the sections in this Plan are for convenience of reference only, and in the event of any conflict, the text of this Plan, rather than such titles or headings shall control.

(t) *Other Agreements*. Notwithstanding the above, the Committee may require, as a condition to the grant of and/or the receipt of Common Shares under an Award, that the Participant execute lock-up, stockholder or other agreements, as it may determine in its sole and absolute discretion.

(u) *Section 409A*. The Plan and all Awards granted hereunder are intended to comply with, or otherwise be exempt from, the requirements of Section 409A. The Plan and all Awards granted under this Plan shall be administered, interpreted, and construed in a manner consistent with Section 409A to the extent necessary to avoid the imposition of additional taxes under Section 409A(a)(1)(B) of the Code. In no event shall the Company or any of its Affiliates be liable for any additional tax, interest or penalties that may be imposed on a Participant under Section 409A or any damages for failing to comply with Section 409A. Notwithstanding any contrary provision in the Plan or Award Agreement, any payment(s) of nonqualified deferred compensation (within the meaning of Section 409A) that are otherwise required to be made under the Plan to a "specified employee" (within the meaning of Section 1.409A-1(i) of the Treasury Regulations) as a result of his or her separation from service (other than a payment that is not subject to Section 409A) shall be delayed for the first six months following such separation from service (or, if earlier, until the date of death of the specified employee) and shall instead be paid (in a manner set forth in the Award Agreement) on the day that immediately follows the end of such six-month period or as soon as administratively practicable thereafter. Any remaining payments of nonqualified deferred compensation shall be paid without delay and at the time or times such payments are otherwise scheduled to be made. A termination of employment or service shall not be deemed to have occurred for purposes of any provision of the Plan or any Award Agreement providing for the payment of any amounts or benefits that are considered nonqualified deferred compensation under Section 409A upon or following a termination of employment or service, unless such termination is also a "separation from service" within the meaning of Section 409A and the payment

thereof prior to a "separation from service" would violate Section 409A. For purposes of any such provision of the Plan or any Award Agreement relating to any such payments or benefits, references to a "termination," "termination of employment," "termination of service," or like terms shall mean "separation from service."

(v) *Payments*. Participants shall be required to pay, to the extent required by applicable law, any amounts required to receive Common Shares under any Award made under this Plan.

Exhibit 10.4

BIOXCEL THERAPEUTICS, INC.

INCENTIVE STOCK OPTION AGREEMENT

Option No. Date of Grant:
Shares:

To:

We are pleased to notify you that **BIOXCEL THERAPEUTICS, INC.** (the "Company") has granted to you an incentive stock option under the 2017 Equity Incentive Plan (the "Plan"), to purchase all or any part of an aggregate of shares of the Common Stock of the Company (the "Optioned Shares") at a price of **$** per share, subject to the terms and conditions of the Plan and of this Agreement set forth hereinafter.

1. Vesting, Term and Exercise of Option. Subject to the provisions of this Agreement, this option may be exercised for up to the number of vested Optioned Shares by you or the representative of your estate on or prior to 10 years from the date of grant ("Last Exercise Date"). of the Optioned Shares vest on .

2. Any portion of the Optioned Shares that you do not exercise shall accumulate and can be exercised by you any time prior to the Last Exercise Date. You may not exercise your option to purchase a fractional share, and you may only exercise your option by purchasing shares in increments of 100 shares unless the remaining shares purchasable are less than 100 shares.

This option may be exercised by delivering to the Secretary of the Company (i) a written Notice of Intention to Exercise in the form attached hereto as Exhibit A signed by you and specifying the number of Optioned Shares you desire to purchase, (ii) payment in full of the exercise price for all such Optioned Shares in cash, certified check or surrender of shares of Common Stock of the Company having a value equal to the exercise price of the Optioned Shares as to which you are exercising this option, provided that such surrendered shares, if previously acquired by exercise of a Company stock option, have been held by you at least six months prior to their surrender. As a holder of an option, you shall have the rights of a shareholder with respect to the Optioned Shares only after they shall have been issued to you upon the exercise of this option. Subject to the terms and provisions of this Agreement and the Plan, the Company shall use its best efforts to cause the Optioned Shares to be issued as promptly as practicable after receipt of your Notice of Intention to Exercise.

3. Death or Termination of Employment or Services. If the employment or services of the Optionee by the Company or a subsidiary corporation of the Company shall be terminated voluntarily by the Optionee or for cause by the Company, this Option shall expire forthwith, but if such employment or services shall be terminated for any other reason (except death or disability), then this Option may not be exercised at any time later than three (3) months after such termination of the Optionee's employment. If the Optionee dies (i) while employed by or in the service of the Company or a subsidiary corporation of the Company, or (ii) within three (3)

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months after termination of the Optionee's employment or services, then this Option may be exercised by the estate of the Optionee, or by a person who acquired the right to exercise this Option by bequest or inheritance or by reason of the death of the Optionee, at any time within one (1) year after such death. If the Optionee's employment or services with the Company or such subsidiary are terminated because of permanent and total disability while employed by or in the service of the Company or such subsidiary, this Option may be exercised at any time within one (1) year after termination of the Optionee's employment or service due to the disability, provided, however, that nothing in this Section 4 shall extend the right to purchase Optioned Shares which could not be purchased by the Optionee prior to the termination of his employment with the Company or such subsidiary.

4. Non-transferability of Option. This Option shall not be transferable and may be exercised during your lifetime only by you. Any purported transfer or assignment of this option shall be void and of no effect, and shall give the Company the right to terminate this option as of the date of such purported transfer or assignment. No transfer of an option by you by will or by the laws of descent and distribution shall be effective unless the Company have been furnished with written notice thereof, and such other evidence as the Board of Directors may deem necessary to establish the validity of the transfer and conditions of the option, and to establish compliance with any laws or regulations pertaining thereto.

5. Plan Provisions to Prevail. This Agreement shall be subject to all of the terms and provisions of the Plan. If there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan shall govern.

6. Certain Rights and Restrictions With Respect to Common Stock. The Optioned Shares which you may acquire upon the exercise of this option will not be registered under the Securities Act of 1933, as amended, or under state securities laws and the resale by you of such Optioned Shares will, therefore, be restricted. You will be unable to transfer such Optioned Shares without either registration under such Act and compliance with applicable state securities laws or the availability of an exemption therefrom. Accordingly, you represent and warrant to the Company that all shares of Common Stock you may acquire upon the exercise of this option will be acquired by you or your estate in the event of your death for your own account for investment and that you will not sell or otherwise dispose of any such shares except in compliance with all applicable federal and state securities laws. The Company may place a legend to such effect upon each certificate representing Optioned Shares acquired by you upon the exercise of this option.

7. Disputes. Any dispute which may arise under or as a result of or pursuant to this Agreement shall be finally and conclusively determined in good faith by the Board of Directors of the Company in its sole discretion, and such determination shall be binding upon all parties.

8. Governing Law. The provisions of this Plan shall be governed by and construed in accordance with the laws of the State of Delaware without regard to its conflicts of laws principles.

BIOXCEL THERAPEUTICS, INC.

By: _____

Exhibit A

NOTICE OF INTENTION TO EXERCISE STOCK OPTIONS

The undersigned grantee of a BioXcel Therapeutics, Inc. Stock Option Agreement dated as of , 2017 to purchase shares of BioXcel Therapeutics, Inc. common stock hereby gives notice of his or her intention to exercise the Stock Option (or a portion thereof) and elects to purchase shares of BioXcel Therapeutics, Inc. common stock.

Shares should be issued in the name of the undersigned and should be sent to the undersigned at:

(Address where you want stock certificates mailed to)

Date: _____

Social Security Number _____

_____
Signature

INSTRUCTIONS: The exercise of these Stock Options is effective on the date the Company has received all of (1) this Notice of Intention to Exercise Stock Options, and (2) payment in full in cash of the exercise price for all shares being purchased pursuant to this Notice.

BIOXCEL THERAPEUTICS, INC.

NON-STATUTORY STOCK OPTION AGREEMENT

Option No. Date of Grant: As of , 2017
Shares:

To:

We are pleased to notify you that **BIOXCEL THERAPEUTICS, INC.** (the "Company") has granted to you an non-statutory stock option under the 2017 Equity Incentive Plan (the "Plan"), to purchase all or any part of an aggregate of shares of the Common Stock of the Company (the "Optioned Shares") at a price of **$** per share, subject to the terms and conditions of the Plan and of this Agreement set forth hereinafter.

1. Vesting, Term and Exercise of Option. Subject to the provisions of this Agreement, this option may be exercised for up to the number of vested Optioned Shares by you or the representative of your estate on or prior to 10 years from the date of grant ("Last Exercise Date"). of the Optioned Shares vest on .

2. Any portion of the Optioned Shares that you do not exercise shall accumulate and can be exercised by you any time prior to the Last Exercise Date. You may not exercise your option to purchase a fractional share, and you may only exercise your option by purchasing shares in increments of 100 shares unless the remaining shares purchasable are less than 100 shares.

This option may be exercised by delivering to the Secretary of the Company (i) a written Notice of Intention to Exercise in the form attached hereto as Exhibit A signed by you and specifying the number of Optioned Shares you desire to purchase, (ii) payment in full of the exercise price for all such Optioned Shares in cash, certified check or surrender of shares of Common Stock of the Company having a value equal to the exercise price of the Optioned Shares as to which you are exercising this option, provided that such surrendered shares, if previously acquired by exercise of a Company stock option, have been held by you at least six months prior to their surrender. As a holder of an option, you shall have the rights of a shareholder with respect to the Optioned Shares only after they shall have been issued to you upon the exercise of this option. Subject to the terms and provisions of this Agreement and the Plan, the Company shall use its best efforts to cause the Optioned Shares to be issued as promptly as practicable after receipt of your Notice of Intention to Exercise.

3. Death or Termination of Employment or Services. If the employment or services of the Optionee by the Company or a subsidiary corporation of the Company shall be terminated voluntarily by the Optionee or for cause by the Company, this Option shall expire forthwith, but if such employment or services shall be terminated for any other reason (except death or disability), then this Option may not be exercised at any time later than three (3) months after such termination of the Optionee's employment. If the Optionee dies (i) while employed by or in the service of the Company or a subsidiary corporation of the Company, or (ii) within three (3)

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months after termination of the Optionee's employment or services, then this Option may be exercised by the estate of the Optionee, or by a person who acquired the right to exercise this Option by bequest or inheritance or by reason of the death of the Optionee, at any time within one (1) year after such death. If the Optionee's employment or services with the Company or such subsidiary are terminated because of permanent and total disability while employed by or in the service of the Company or such subsidiary, this Option may be exercised at any time within one (1) year after termination of the Optionee's employment or service due to the disability, provided, however, that nothing in this Section 4 shall extend the right to purchase Optioned Shares which could not be purchased by the Optionee prior to the termination of his employment with the Company or such subsidiary.

4. Non-transferability of Option. This Option shall not be transferable and may be exercised during your lifetime only by you. Any purported transfer or assignment of this option shall be void and of no effect, and shall give the Company the right to terminate this option as of the date of such purported transfer or assignment. No transfer of an option by you by will or by the laws of descent and distribution shall be effective unless the Company have been furnished with written notice thereof, and such other evidence as the Board of Directors may deem necessary to establish the validity of the transfer and conditions of the option, and to establish compliance with any laws or regulations pertaining thereto.

5. Plan Provisions to Prevail. This Agreement shall be subject to all of the terms and provisions of the Plan. If there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan shall govern.

6. Certain Rights and Restrictions With Respect to Common Stock. The Optioned Shares which you may acquire upon the exercise of this option will not be registered under the Securities Act of 1933, as amended, or under state securities laws and the resale by you of such Optioned Shares will, therefore, be restricted. You will be unable to transfer such Optioned Shares without either registration under such Act and compliance with applicable state securities laws or the availability of an exemption therefrom. Accordingly, you represent and warrant to the Company that all shares of Common Stock you may acquire upon the exercise of this option will be acquired by you or your estate in the event of your death for your own account for investment and that you will not sell or otherwise dispose of any such shares except in compliance with all applicable federal and state securities laws. The Company may place a legend to such effect upon each certificate representing Optioned Shares acquired by you upon the exercise of this option.

7. Disputes. Any dispute which may arise under or as a result of or pursuant to this Agreement shall be finally and conclusively determined in good faith by the Board of Directors of the Company in its sole discretion, and such determination shall be binding upon all parties.

8. Governing Law. The provisions of this Plan shall be governed by and construed in accordance with the laws of the State of Delaware without regard to its conflicts of laws principles.

BIOXCEL THERAPEUTICS, INC.

By: _____

Exhibit A

NOTICE OF INTENTION TO EXERCISE STOCK OPTIONS

The undersigned grantee of a BioXcel Therapeutics, Inc. Stock Option Agreement dated as of , 2017 to purchase shares of BioXcel Therapeutics, Inc. common stock hereby gives notice of his or her intention to exercise the Stock Option (or a portion thereof) and elects to purchase shares of BioXcel Therapeutics, Inc. common stock.

Shares should be issued in the name of the undersigned and should be sent to the undersigned at:

(Address where you want stock certificates mailed to)

Date: _____

Social Security Number _____

_____
Signature

INSTRUCTIONS: The exercise of these Stock Options is effective on the date the Company has received all of (1) this Notice of Intention to Exercise Stock Options, and (2) payment in full in cash of the exercise price for all shares being purchased pursuant to this Notice.

EXHIBIT 10.6

BIOXCEL THERAPEUTICS, INC.

INDEMNIFICATION AGREEMENT

This INDEMNIFICATION AGREEMENT ("Agreement") is made as of , 2018 by and between BioXcel Therapeutics, Inc., a Delaware corporation (the "Company"), and ("Indemnitee"). This Agreement supersedes and replaces any and all previous Agreements between the Company and Indemnitee covering the subject matter of this Agreement.

RECITALS

WHEREAS, highly competent persons have become more reluctant to serve publicly held corporations as directors or officers or in other capacities unless they are provided with adequate protection through insurance or adequate indemnification against inordinate risks of claims and actions against them arising out of their service to and activities on behalf of the corporation;

WHEREAS, the Board of Directors of the Company (the "Board") has determined that, in order to attract and retain qualified individuals, the Company will attempt to maintain on an ongoing basis, at its sole expense, liability insurance to protect persons serving the Company from certain liabilities. The By-Laws (the "By-Laws") of the Company and the Certificate of Incorporation of the Company ("the Certificate of Incorporation") require indemnification of the officers and directors of the Company. Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware (the "DGCL"). The By-Laws and the Certificate of Incorporation and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Company and members of the board of directors, officers and other persons with respect to indemnification;

WHEREAS, the uncertainties relating to such insurance and to indemnification have increased the difficulty of attracting and retaining such persons;

WHEREAS, the Board has determined that the increased difficulty in attracting and retaining such persons is detrimental to the best interests of the Company and its stockholders and that the Company should act to assure such persons that there will be increased certainty of such protection in the future;

WHEREAS, it is reasonable, prudent and necessary for the Company to contractually obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law so that they will serve or continue to serve the Company free from undue concern that they will not be so indemnified;

WHEREAS, this Agreement is a supplement to and in furtherance of the By-Laws and the Certificate of Incorporation and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder;

WHEREAS, Indemnitee does not regard the protection available under the By-Laws and insurance as adequate in the present circumstances, and may not be willing to serve as an officer or director without adequate protection, and the Company desires Indemnitee to serve in such capacity. Indemnitee is willing to serve, continue to serve and to take on additional service for or on behalf of the Company on the condition that he be so indemnified; and

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, the Company and Indemnitee do hereby covenant and agree as follows:

Section 1. Services to the Company. Indemnitee agrees to continue to serve as an officer of the Company. Indemnitee may at any time and for any reason resign from such position (subject to any other contractual obligation or any obligation imposed by operation of law), in which event the Company shall have no obligation under this Agreement to keep Indemnitee in such position. This Agreement shall not be deemed an employment contract between the Company and Indemnitee. Indemnitee specifically acknowledges that Indemnitee's employment with the Company, if any, is at will, and the Indemnitee may be discharged at any time for any reason, with or without cause, except as may be otherwise provided in any written employment contract between Indemnitee and the Company, other applicable formal severance policies duly adopted by the Board, or, with respect to service as a director or officer of the Company, by the Certificate of Incorporation, the By-Laws, and the DGCL. The foregoing notwithstanding, this Agreement shall continue in force after Indemnitee has ceased to serve as an officer of the Company.

Section 2. Definitions. As used in this Agreement:

(a) References to "agent" shall mean any person who is or was a director, officer, or employee of the Company or other person authorized by the Company to act for the Company, to include such person serving in such capacity as a director, officer, employee, fiduciary or other official of another corporation, partnership, limited liability company, joint venture, trust or other Enterprise at the request of, for the convenience of, or to represent the interests of the Company.

(b) A "Change in Control" shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(i) Acquisition of Stock by Third Party. Any Person (as defined below) is or becomes the Beneficial Owner (as defined below), directly or indirectly, of securities of the Company representing more than fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities;

(ii) Change in Board. During any period of two (2) consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constitute the Board, and any new director (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in Sections 2(b)(i), 2(b)(iii) or 2(b)(iv)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who

either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the members of the Board;

(iii) Corporate Transactions. The effective date of a merger or consolidation of the Company with any other entity, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 51% of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the board of directors or other governing body of such surviving entity;

(iv) Liquidation. The approval by the stockholders of the Company of a complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets; and

(v) Other Events. There occurs any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or a response to any similar item on any similar schedule or form) promulgated under the Exchange Act (as defined below), whether or not the Company is then subject to such reporting requirement.

For purposes of this Section 2(b), the following terms shall have the following meanings:

(A) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended from time to time.

(B) "Person" shall have the meaning as set forth in Sections 13(d) and 14(d) of the Exchange Act; provided, however, that Person shall exclude (i) the Company, (ii) any trustee or other fiduciary holding securities under an employee benefit plan of the Company, and (iii) any corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(C) "Beneficial Owner" shall have the meaning given to such term in Rule 13d-3 under the Exchange Act; provided, however, that Beneficial Owner shall exclude any Person otherwise becoming a Beneficial Owner by reason of the stockholders of the Company approving a merger of the Company with another entity.

(c) "Corporate Status" describes the status of a person who is or was a director, officer, employee or agent of the Company or of any other corporation, limited liability company, partnership or joint venture, trust, employee benefit plan or other enterprise which such person is or was serving at the request of the Company.

(d) "Disinterested Director" means a director of the Company who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

(e) "Enterprise" shall mean the Company and any other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise of which Indemnitee is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary.

(f) "Expenses" shall include all reasonable attorneys' fees, retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, any federal, state, local or foreign taxes imposed on Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement, ERISA excise taxes and penalties, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding. Expenses also shall include (i) Expenses incurred in connection with any appeal resulting from any Proceeding, including without limitation the premium, security for, and other costs relating to any cost bond or other appeal bond or its equivalent, and (ii) for purposes of Section 14(d) only, Expenses incurred by Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement, by litigation or otherwise. The parties agree that for the purposes of any advancement of Expenses for which Indemnitee has made written demand to the Company in accordance with this Agreement, all Expenses included in such demand that are certified by affidavit of Indemnitee's counsel as being reasonable shall be presumed conclusively to be reasonable. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments or fines against Indemnitee.

(g) "Independent Counsel" means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five years has been, retained to represent: (i) the Company or Indemnitee in any matter material to either such party (other than with respect to matters concerning the Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements), or (ii) any other party to the Proceeding giving rise to a claim for

indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees and expenses of the Independent Counsel referred to above and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(h) The term "Proceeding" shall include any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether brought in the right of the Company or otherwise and whether of a civil, criminal, administrative legislative, or investigative (formal or informal) nature, including any appeal therefrom, in which Indemnitee was, is or will be involved as a party, potential party, non-party witness or otherwise by reason of the fact that Indemnitee is or was a director or officer of the Company, by reason of any action taken by him or of any action on his part while acting as director or officer of the Company, or by reason of the fact that he is or was serving at the request of the Company, including prior to the date of this Agreement, as a director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, in each case whether or not serving in such capacity at the

time any liability or expense is incurred for which indemnification, reimbursement, or advancement of expenses can be provided under this Agreement. If the Indemnitee believes in good faith that a given situation may lead to or culminate in the institution of a Proceeding, this shall be considered a Proceeding under this paragraph.

(i) Reference to "other enterprise" shall include employee benefit plans; references to "fines" shall include any excise tax assessed with respect to any employee benefit plan; references to "serving at the request of the Company" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the best interests of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

Section 3. Indemnity in Third-Party Proceedings. The Company shall indemnify Indemnitee in accordance with the provisions of this Section 3 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 3, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company and, in the case of a criminal proceeding had no reasonable cause to believe that his conduct was unlawful. The parties hereto intend that this Agreement shall provide to the fullest extent permitted by law for indemnification in excess of that expressly permitted by statute, including, without limitation, any indemnification provided by the Certificate of Incorporation, the By-Laws, vote of the Company's stockholders or disinterested directors or applicable law.

Section 4. Indemnity in Proceedings by or in the Right of the Company. The Company shall indemnify Indemnitee in accordance with the provisions of this Section 4 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 4, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Expenses actually and reasonably incurred by him or on his behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith

and in a manner he reasonably believed to be in or not opposed to the best interests of the Company. No indemnification for Expenses shall be made under this Section 4 in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged by a court to be liable to the Company, unless and only to the extent that the Delaware Court of Chancery or any court in which the Proceeding was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification.

Section 5. Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provisions of this Agreement, to the fullest extent permitted by applicable law and to the extent that Indemnitee is a party to (or a participant in) and is successful, on the merits or otherwise, in any Proceeding or in defense of any claim, issue or matter therein, in whole or in part, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or on his behalf in connection with or related to each successfully resolved claim, issue or matter to the fullest extent permitted by law. For purposes of this Section 5 and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

Section 6. Indemnification For Expenses of a Witness. Notwithstanding any other provision of this Agreement, to the fullest extent permitted by applicable law and to the extent that Indemnitee is, by reason of his Corporate Status, a witness or otherwise asked to participate in any Proceeding to which Indemnitee is not a party, he shall be indemnified against all Expenses actually and reasonably incurred by him or on his behalf in connection therewith.

Section 7. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion thereof to which Indemnitee is entitled.

Section 8. Additional Indemnification.

(a) Notwithstanding any limitation in Sections 3, 4, or 5, the Company shall indemnify Indemnitee to the fullest extent permitted by applicable law if Indemnitee is a party to or threatened to be made a party to any Proceeding (including a Proceeding by or in the right of the Company to procure a judgment in its favor) against all Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by Indemnitee in connection with the Proceeding.

(b) For purposes of Section 8(a), the meaning of the phrase "to the fullest extent permitted by applicable law" shall include, but not be limited to:

(i) to the fullest extent permitted by the provision of the DGCL that authorizes or contemplates additional indemnification by agreement, or the corresponding provision of any amendment to or replacement of the DGCL, and

(ii) to the fullest extent authorized or permitted by any amendments to or replacements of the DGCL adopted after the date of this Agreement that increase the extent to which a corporation may indemnify its officers and directors.

Section 9. Exclusions. Notwithstanding any provision in this Agreement, the Company shall not be obligated under this Agreement to make any indemnity in connection with any claim made against Indemnitee:

(a) for which payment has actually been made to or on behalf of Indemnitee under any insurance policy or other indemnity provision, except with respect to any excess beyond the amount paid under any insurance policy or other indemnity provision; or

(b) for (i) an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Exchange Act (as defined in Section 2(b) hereof) or similar provisions of state statutory law or common law, or (ii) any reimbursement of the Company by the Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by the Indemnitee from the sale of securities of the Company, as required in each case under the Exchange Act (including any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act); or

(c) except as provided in Section 14(d) of this Agreement, in connection with any Proceeding (or any part of any Proceeding) initiated by Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by Indemnitee against the Company or its directors, officers, employees or other indemnitees, unless (i) the Board authorized the Proceeding (or any part of any Proceeding) prior to its initiation or (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law.

Section 10. Advances of Expenses. In accordance with Section 3 of Article XI of the By-Laws, and notwithstanding any provision of this Agreement to the contrary, the Company shall advance, to the extent not prohibited by law, the Expenses incurred by Indemnitee in connection with any Proceeding, and such advancement shall be made within thirty (30) days after the receipt by the Company of a statement or statements requesting such advances from time to time, whether prior to or after final disposition of any Proceeding. Advances shall be unsecured and interest free. Advances shall be made without regard to Indemnitee's ability to repay the Expenses and without regard to Indemnitee's ultimate entitlement to indemnification under the other provisions of this Agreement. Advances shall include any and all reasonable Expenses incurred pursuing an action to enforce this right of advancement, including Expenses incurred preparing and forwarding statements to the Company to support the advances claimed. The Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement, which shall constitute an undertaking providing that the Indemnitee undertakes to repay the amounts advanced (without interest) to the extent that it is ultimately determined that Indemnitee is not entitled to be indemnified by the Company. No other form of undertaking shall be required other than the execution of this Agreement. This Section 10 shall not apply to any claim made by Indemnitee for which indemnity is excluded pursuant to Section 9.

Section 11. Procedure for Notification and Defense of Claim.

(a) Indemnitee shall notify the Company in writing of any matter with respect to which Indemnitee intends to seek indemnification or advancement of Expenses hereunder as soon as reasonably practicable following the receipt by Indemnitee of written notice thereof. The written notification to the Company shall include a description of the nature of the Proceeding and the facts underlying the Proceeding. To obtain indemnification under this Agreement, Indemnitee shall submit to the Company a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification following the final disposition of such action, suit or proceeding. The omission by Indemnitee to notify the Company hereunder will not relieve the Company from any liability which it may have to Indemnitee hereunder or otherwise than under this Agreement, and any delay in so notifying the Company shall not constitute a waiver by Indemnitee of any rights under this Agreement.

The Secretary of the Company shall, promptly upon receipt of such a request for indemnification, advise the Board in writing that Indemnitee has requested indemnification.

(b) The Company will be entitled to participate in the Proceeding at its own expense.

Section 12. Procedure Upon Application for Indemnification.

(a) Upon written request by Indemnitee for indemnification pursuant to Section 11(a), a determination, if required by applicable law, with respect to Indemnitee's entitlement thereto shall be made in the specific case: (i) if a Change in Control shall have occurred, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee; or (ii) if a Change in Control shall not have occurred, (A) by a majority vote of the Disinterested Directors, even if less than a quorum of the Board, (B) by a committee of Disinterested Directors designated by a majority vote of the Disinterested Directors, even if less than a quorum of the Board, (C) if there are no such Disinterested Directors or, if such Disinterested Directors so direct, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee or (D) if so directed by the Board, by the stockholders of the Company; and, if it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within ten (10) days after such determination. Indemnitee shall cooperate with the person, persons or entity making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such person, persons or entity upon reasonable advance request any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. Any costs or Expenses (including attorneys' fees and disbursements) incurred by Indemnitee in so cooperating with the person, persons or entity making such determination shall be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

(b) In the event the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 12(a) hereof, the Independent Counsel shall be selected as provided in this Section 12(b). If a Change in Control shall not have occurred, the Independent Counsel shall be selected by the Board, and the Company shall give written notice to Indemnitee advising him of the identity of the Independent Counsel so selected. If a Change in Control shall have occurred, the Independent Counsel shall be selected by Indemnitee (unless Indemnitee shall request that such selection be made by the Board, in which event the preceding sentence shall apply), and Indemnitee shall give written notice to the Company advising it of the identity of the Independent Counsel so selected. In either event, Indemnitee or the Company, as the case may be, may, within ten (10) days after such written notice of selection shall have been given, deliver to the Company or to Indemnitee, as the case may be, a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 2 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or a court has determined that such objection is without merit. If, within twenty (20) days after the later of submission by Indemnitee of a written request for indemnification pursuant to Section 11(a) hereof and the final disposition of the Proceeding, no Independent Counsel shall have been selected and not objected to, either the Company or Indemnitee may petition a court of competent jurisdiction for resolution of any objection which shall have been made by the Company or Indemnitee to the other's selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by the Court or by such other person as the Court shall designate, and the person with

respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 12(a) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 14(a) of this Agreement, Independent Counsel

shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

Section 13. Presumptions and Effect of Certain Proceedings.

(a) In making a determination with respect to entitlement to indemnification hereunder, the person or persons or entity making such determination shall, to the fullest extent not prohibited by law, presume that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 11(a) of this Agreement, and the Company shall, to the fullest extent not prohibited by law, have the burden of proof to overcome that presumption in connection with the making by any person, persons or entity of any determination contrary to that presumption. Neither the failure of the Company (including by its directors or independent legal counsel) to have made a determination prior to the commencement of any action pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Company (including by its directors or independent legal counsel) that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

(b) Subject to Section 14(e), if the person, persons or entity empowered or selected under Section 12 of this Agreement to determine whether Indemnitee is entitled to indemnification shall not have made a determination within sixty (60) days after receipt by the Company of the request therefor, the requisite determination of entitlement to indemnification shall, to the fullest extent not prohibited by law, be deemed to have been made and Indemnitee shall be entitled to such indemnification, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law; provided, however, that such 60-day period may be extended for a reasonable time, not to exceed an additional thirty (30) days, if the person, persons or entity making the determination with respect to entitlement to indemnification in good faith requires such additional time for the obtaining or evaluating of documentation and/or information relating thereto; and provided, further, that the foregoing provisions of this Section 13(b) shall not apply (i) if the determination of entitlement to indemnification is to be made by the stockholders pursuant to Section 12(a) of this Agreement and if (A) within fifteen (15) days after receipt by the Company of the request for such determination the Board has resolved to submit such determination to the stockholders for their consideration at an annual meeting thereof to be held within seventy-five (75) days after such receipt and such determination is made thereat, or (B) a special meeting of stockholders is called within fifteen (15) days after such receipt for the purpose of making such determination, such meeting is held for such purpose within sixty (60) days after having been so called and such determination is made thereat, or (ii) if the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 12(a) of this Agreement.

(c) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that his conduct was unlawful.

(d) Reliance as Safe Harbor. For purposes of any determination of good faith, Indemnitee shall be deemed to have acted in good faith if Indemnitee's action is based on the records or books of account of the Enterprise, including financial statements, or on information supplied to Indemnitee by the officers of the Enterprise in the course of their duties, or on the advice of legal counsel for the Enterprise or on information or records given or reports made to the Enterprise by an independent certified public accountant or by an appraiser or other expert selected with the reasonable care by the Enterprise. The

provisions of this Section 13(d) shall not be deemed to be exclusive or to limit in any way the other circumstances in which the Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement.

(e) Actions of Others. The knowledge and/or actions, or failure to act, of any director, officer, agent or employee of the Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

Section 14. Remedies of Indemnitee.

(a) Subject to Section 14(e), in the event that (i) a determination is made pursuant to Section 12 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 10 of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 12(a) of this Agreement within ninety (90) days after receipt by the Company of the request for indemnification, (iv) payment of indemnification is not made pursuant to Section 5, 6 or 7 or the last sentence of Section 12(a) of this Agreement within ten (10) days after receipt by the Company of a written request therefor, (v) payment of indemnification pursuant to Section 3, 4 or 8 of this Agreement is not made within ten (10) days after a determination has been made that Indemnitee is entitled to indemnification, or (vi) in the event that the Company or any other person takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or Proceeding designed to deny, or to recover from, the Indemnitee the benefits provided or intended to be provided to the Indemnitee hereunder, Indemnitee shall be entitled to an adjudication by a court of his entitlement to such indemnification or advancement of Expenses. Alternatively, Indemnitee, at his option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 14(a); provided, however, that the foregoing clause shall not apply in respect of a proceeding brought by Indemnitee to enforce his rights under Section 5 of this Agreement. The Company shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration.

(b) In the event that a determination shall have been made pursuant to Section 12(a) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 14 shall be conducted in all respects as a de novo trial, or arbitration, on the merits and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced

pursuant to this Section 14 the Company shall have the burden of proving Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be.

(c) If a determination shall have been made pursuant to Section 12(a) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 14, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) The Company shall, to the fullest extent not prohibited by law, be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 14 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Company is bound by all the provisions of this Agreement. It is the intent of the Company that, to the fullest extent permitted by law, the Indemnitee not be required to incur legal fees or other Expenses associated with the interpretation, enforcement or defense of

Indemnitee's rights under this Agreement by litigation or otherwise because the cost and expense thereof would substantially detract from the benefits intended to be extended to the Indemnitee hereunder. The Company shall, to the fullest extent permitted by law, indemnify Indemnitee against any and all Expenses and, if requested by Indemnitee, shall (within ten (10) days after receipt by the Company of a written request therefor) advance, to the extent not prohibited by law, such Expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advancement of Expenses from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company if Indemnitee is wholly successful on the underlying claims; if Indemnitee is not wholly successful on the underlying claims, then such indemnification and advancement shall be only to the extent Indemnitee is successful on such underlying claims or otherwise as permitted by law, whichever is greater.

(e) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement of Indemnitee to indemnification under this Agreement shall be required to be made prior to the final disposition of the Proceeding.

Section 15. Non-exclusivity; Survival of Rights; Insurance; Subrogation.

(a) The rights of indemnification and to receive advancement of Expenses as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Certificate of Incorporation, the By-Laws, any agreement, a vote of stockholders or a resolution of directors, or otherwise. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his Corporate Status prior to such amendment, alteration or repeal. To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement of Expenses than would be afforded currently under the By-Laws, the Certificate of Incorporation and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) The Company shall use its best efforts to maintain an insurance policy or policies providing liability insurance for directors and officers in effect at all times. To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, officers, employees, or agents of the Company or of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise which such person serves at the request of the Company, Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, officer, employee or agent under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of such claim or of the commencement of a proceeding, as the case may be, to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(c) In the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

(d) The Company shall not be liable under this Agreement to make any payment of amounts otherwise indemnifiable (or for which advancement is provided hereunder) hereunder if and to the extent that Indemnitee has otherwise actually received such payment under any insurance policy, contract, agreement or otherwise.

(e) The Company's obligation to indemnify or advance Expenses hereunder to Indemnitee who is or was serving at the request of the Company as a director, officer, employee or agent of any other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise shall be reduced by any amount Indemnitee has actually received as indemnification or advancement of Expenses from such other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise.

Section 16. Duration of Agreement. This Agreement shall continue until and terminate upon the later of: (a) ten (10) years after the date that Indemnitee shall have ceased to serve as an officer of the Company or (b) one (1) year after the final termination of any Proceeding then pending in respect of which Indemnitee is granted rights of indemnification or advancement of Expenses hereunder and of any proceeding commenced by Indemnitee pursuant to Section 14 of this Agreement relating thereto. This Agreement shall be binding upon the Company and its successors and assigns and shall inure to the benefit of Indemnitee and his heirs, executors and administrators.

Section 17. Severability. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Agreement (including without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest extent permitted by law; (b) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (c) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

Section 18. Enforcement.

(a) The Company expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve as a director or officer of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as a director or officer of the Company.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; provided, however, that this Agreement is a supplement to and in furtherance of the Certificate of Incorporation, the By-Laws and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

Section 19. Modification and Waiver. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing by the parties thereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver.

Section 20. Notice by Indemnitee. Indemnitee agrees promptly to notify the Company in writing upon being served with any summons, citation, subpoena, complaint, indictment, information or

other document relating to any Proceeding or matter which may be subject to indemnification or advancement of Expenses covered hereunder. The failure of Indemnitee to so notify the Company shall not relieve the Company of any obligation which it may have to the Indemnitee under this Agreement or otherwise.

Section 21. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if (a) delivered by hand and receipted for by the party to whom said notice or other communication shall have been directed, (b) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed, (c) mailed by reputable overnight courier and receipted for by the party to whom said notice or other communication shall have been directed or (d) sent by facsimile transmission, with receipt of oral confirmation that such transmission has been received:

(i) If to Indemnitee, at the address indicated on the signature page of this Agreement, or such other address as Indemnitee shall provide to the Company.

(ii) If to the Company to

BioXcel Therapeutics Inc.
780 East Main Street
Branford, CT 06405
Attention: Chief Executive Officer

or to any other address as may have been furnished to Indemnitee by the Company.

Section 22. Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (a) the relative benefits received by the Company and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding; and/or (b) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transaction(s).

Section 23. Applicable Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. Except with respect to any arbitration commenced by Indemnitee pursuant to Section 14(a) of this Agreement, the Company and Indemnitee hereby irrevocably and unconditionally (a) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Chancery Court of the State of Delaware (the "Delaware Court"), and not in any other state or federal court in the United States of America or any court in any other country, (b) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement, (c) appoint, to the extent such party is not otherwise subject to service of process in the State of Delaware, irrevocably The Corporation Service Company, 2711 Centerville Road, City of Wilmington, County of New Castle, Delaware 19808 as its agent in the State of Delaware as such party's agent for acceptance of legal process in connection with any such action or proceeding against such party with the same legal force and validity as if served upon such party personally within the State of Delaware, (d) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court, and (e) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

Section 24. Identical Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

Section 25. Miscellaneous. Use of the masculine pronoun shall be deemed to include usage of the feminine pronoun where appropriate. The headings of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed as of the day and year first above written.

BIOXCEL THERAPEUTICS, INC.

By: _____

Title: _____

INDEMNITEE

_____

Address:

_____

_____

EXECUTIVE AGREEMENT

This Executive Agreement (the "Agreement") is made and entered into effective as of September 1, 2014 (the "Effective Date"), by and between Vimal Mehta (the "Executive") and BioXcel Corporation., a Delaware corporation (the "Company").

R E C I T A L S

A. WHEREAS, the Company wishes to retain Executive as its Chief Executive Officer; and

B. WHEREAS, in order to provide Executive with the financial security and sufficient encouragement to become retained by the Company, the Board of Directors of the Company (the "Board") believes that it is in the best interests of the Company to provide Executive with certain engagement terms and severance benefits as set forth herein.

AGREEMENT

In consideration of the mutual covenants herein contained and the engagement of Executive by the Company, the parties agree as follows:

1. Definition of Terms. The following terms referred to in this Agreement shall have the following meanings:

(a) "Cause" shall mean any of the following: (i) the commission of an act of fraud, embezzlement or material dishonesty which is intended to result in substantial personal enrichment of Executive in connection with Executive's engagement with the Company; (ii) Executive's conviction of, or plea of *nolo contendere*, to a crime constituting a felony (other than traffic-related offenses); (iii) Executive's willful misconduct that is materially injurious to the Company; (iv) a material breach of Executive's proprietary information agreement that is materially injurious to the Company; or (v) Executive's (1) material failure to perform his duties as an officer of the Company, and (2) failure to "cure" any such failure within thirty (30) days after receipt of written notice from the Company delineating the specific acts that constituted such material failure and the specific actions necessary, if any, to "cure" such failure.

(b) "Change of Control" shall mean the occurrence of any of the following events:

(i) the date on which any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) obtains "beneficial ownership" (as defined in Rule 13d-3 of the Exchange Act) or a pecuniary interest in fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities ("Voting Stock");

(ii) the consummation of a merger, consolidation, reorganization, or similar transaction involving the Company, other than a transaction: (1) in which substantially all

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of the holders of the Voting Stock immediately prior to such transaction hold or receive directly or indirectly fifty percent (50%) or more of the voting stock of the resulting entity or a parent company thereof, in substantially the same proportions as their ownership of the Company immediately prior to the transaction; or (2) in which the holders of the Company's capital stock immediately before such transaction will, immediately after such transaction, hold as a group on a fully diluted basis the ability to elect at least a majority of the authorized directors of the surviving entity (or a parent company); or

(iii) there is consummated a sale, lease, license or disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries, other than a sale, lease, license or disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries to an entity, fifty percent (50%) or more of the combined voting power of the voting securities of which are owned by stockholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale, lease, license or disposition.

(c) "Disability" means a physical or mental disability, which prevents Executive from performing Executive's duties under this Agreement for a period of at least 120 consecutive days in any twelve month period or 150 non consecutive days in any twelve month period.

(d) "Good Reason" shall mean without Executive's express written consent any of the following: (i) a significant reduction of Executive's duties, position or responsibilities relative to Executive's duties, position or responsibilities in effect immediately prior to such reduction, or the removal of Executive from such position, duties or responsibilities; (ii) a reduction of Executive's compensation as in effect immediately prior to such reduction; (iii) the relocation of Executive to a facility or a location more than twenty-five (25) miles from the Company's then current principal location; (iv) a material breach by the Company of this Agreement or any other agreement with Executive that is not corrected within fifteen (15) days after written notice from Executive (or such earlier date that the Company has notice of such material breach); or (v) the failure of the Company to obtain the written assumption of this Agreement by any successor contemplated in Section 11 below.

2. Duties and Scope of Position. During the Engagement Term (as defined below), Executive will serve as Chief Executive Officer of the Company, reporting to the Board of Directors, and assuming and discharging such responsibilities as are commensurate with Executive's position. During the Engagement Term, Executive will provide services in a manner that will faithfully and diligently further the business of the Company and will devote a substantial portion of Executive's business time, attention and energy thereto. Notwithstanding the foregoing, nothing in this Agreement shall restrict Executive from managing his investments, other business affairs and other matters or serving on civic or charitable boards or committees, provided that no such activities unduly interfere with the performance of his obligations under this Agreement, provided that Executive shall honor the non competition and non solicitation terms as per Section 14 below. During the Engagement Term, Executive agrees to disclose to the Company those other companies of which he is a member of the Board of Directors, an executive officer, or a consultant.

3. Term. The term of Executive's engagement under this Agreement shall commence as of the date above (the "Effective Date") and shall continue for a period of three (3) years, unless earlier terminated in accordance with Section 8 hereof. The term of Executive's engagement shall be automatically renewed for successive one (1) year periods until the Executive or the Company delivers to the other party a written notice of their intent not to renew the "Engagement Term," such written notice to be delivered at least sixty (60) days prior to the expiration of the then-effective "Engagement Term as that term is defined below. The period commencing as of the Effective Date and ending three (3) years from the Effective Date or such later date to which the term of Executive's engagement under the Agreement shall have been extended is referred to herein as the " Engagement Term " and the end of the Engagement Term is referred to herein as the "Expiration Date."

4. Base Compensation. Initially, the Company shall pay to Executive a base compensation (the "Base Compensation") of $125,000 per year (prorated for any partial year), payable in equal bimonthly installments. The Base Compensation shall be increased to $250,000 per year (prorated for any partial year) after an initial public offering of the Company's securities. In addition, each year during the term of this Agreement, Executive shall be reviewed for purposes of determining the appropriateness of increasing his Base Compensation hereunder. For purposes of the Agreement, the term "Base Compensation" as of any point in time shall refer to the Base Compensation as adjusted pursuant to this Section 4.

5. Target Bonus. In addition to his Base Compensation, Executive shall be given the opportunity to earn an annual bonus (the "Bonus") of up to 50% of Base Compensation. The Bonus shall be earned by Executive upon the Company's achievement of performance milestones for a fiscal year (in each case, the "Target Year") to be mutually agreed upon by the Executive and the Board or its compensation committee. Such performance milestones shall be established by the last day of the first month of the Target Year. The Bonus shall be paid by the fifteenth day of the second month of the fiscal year immediately following the Target Year. In the event Executive is retained by the Company for less than the full Target Year for which a Bonus is earned pursuant to this Section 5, Executive shall be entitled to receive a pro-rated Bonus for such Target Year based on the number of days Executive was retained by the Company during such Target Year divided by 365. The determinations of the Board or its compensation committee with respect to Bonuses will be final and binding.

6. Stock Option Grant. 250 qualified stock options (the "Initial Options") shall be granted to Executive under SEC rule 701 and pursuant to the Company's stock option plan upon commencement of the Engagement Term. Such options will have an exercise price equal to fair market value per share on the date of grant and will vest annually in equal amounts over a period of three (3) years, with 83.33 shares vesting on each one-year anniversary of the date of grant. The option agreement will include (i) a Change of Control provision whereby as of immediately prior to a Change of Control of the Company, all of the stock options will vest and become fully exercisable and (ii) a termination provision whereby in the event Executive's engagement is terminated voluntarily or for Cause by the Company, the unvested stock options will expire forthwith but (iii) if such engagement is terminated for any other reason (except death or Disability), the options may not be exercised at any time later than six (6) months after such termination of Executive's engagement. If Executive's engagement is terminated by death or Disability, the options may be exercised within a period of one (1) year after such termination.

7. Benefits. Executive shall participate in all employee welfare and benefit plans and shall receive such other fringe benefits as the Company offers to its senior executives and directors. Until such time that the Company implements an employee health insurance plan, the Company agrees to reimburse Executive for all COBRA payments he makes to maintain health insurance coverage for himself and his family. In addition, Executive shall be entitled to a car lease allowance from the Company during the Engagement Term of up to $750 per month.

8. Termination.

(a) Termination by the Company. Subject to the obligations of the Company set forth in Section 8, the Company may terminate Executive's engagement at any time and for any reason (or no reason), and with or without Cause, and without prejudice to any other right or remedy to which the Company or Executive may be entitled at law or in equity or under this Agreement. Notwithstanding the foregoing, in the event the Company desires to terminate the Executive's engagement without Cause, the Company shall give the Executive not less than sixty (60) days advance written notice. Executive's engagement shall terminate automatically in the event of his death.

(b) Termination by Executive. Executive may voluntarily terminate the Engagement Term upon sixty (60) days' prior written notice for any reason or no reason. Executive may terminate the engagement for Good Reason without notice.

(c) Termination for Death or Disability. Subject to the obligations of the Company set forth in Section 8, Executive's engagement shall terminate automatically upon his death. Subject to the obligations of the Company set forth in Section 8, in the event Executive is unable to perform his duties as a result of Disability during the Engagement Term, the Company shall have the right to terminate the engagement of Executive by providing written notice of the effective date of such termination.

9. Payments Upon Termination of Engagement.

(a) Termination for Cause, Death or Disability or Termination by Executive. In the event that Executive's engagement hereunder is terminated during the Engagement Term by the Company for Cause pursuant to Section 8(a), as a result of Executive's death or Disability pursuant to Section 8(c), or voluntarily by Executive, the Company shall compensate Executive (or in the case of death, Executive's estate) as follows: on the date of termination the Company shall pay to the Executive, if the Executive instructs the Company in writing, a lump sum amount equal to (i) any portion of unpaid Base Compensation then due for periods prior to the effective date of termination; (ii) any Bonus and/or Realization Bonus earned and not yet paid through the date of termination; and (iii) within 2-1/2 months following submission of proper expense reports by Executive or Executive's estate, all expenses reasonably and necessarily incurred by Executive in connection with the business of the Company prior to the date of termination.

(b) Termination by Company Without Cause or by Executive For Good Reason. In the event that Executive's engagement is terminated during the Engagement Term by the Company without Cause pursuant to Section 8(a) or by Executive for Good Reason pursuant to Section 8(b), the Company shall compensate Executive, as follows:

(i) on the date of termination, the Company shall pay to the Executive, if the Executive instructs the Company in writing, a lump sum amount equal to (A) any portion of unpaid Base Compensation then due for periods prior to the effective date of termination; (B) any Bonus earned and not yet paid through the date of termination; and (C) within 2-1/2 months following submission of proper expense reports by Executive, all expenses reasonably and necessarily incurred by Executive in connection with the business of the Company prior to the date of termination; and, provided that Executive executes a written release, substantially in the form attached hereto as Exhibit "B", of any and all claims against the Company and all related parties with respect to all matters arising out of Executive's engagement by the Company, the Company shall pay to the Executive the Base Compensation and reimburse Executive's payment of COBRA premiums for twelve (12) months from the date of termination. In the event Executive's engagement is terminated without Cause or for Good Reason and a Change of Control of the Company occurs within six (6) months of such termination, Executive also shall be entitled to the severance benefits set forth under Section 9(c).

(c) Termination in the Context of a Change of Control. Notwithstanding anything in Section 9(a) or 9(b) to the contrary, in the event of Executive's termination of engagement with the Company either (i) by the Company without Cause or Executive for Good Reason at any time within six (6) months prior to the consummation of a Change of Control if, prior to or as of such termination, a Change of Control transaction was Pending (as defined in Section 9(d) below) at any time during such six (6)-month period, (ii) by Executive for Good Reason at any time within twelve (12) months after the consummation of a Change of Control, or (iii) by the Company without Cause at any time within twelve (12) months after the consummation of a Change of Control, then, Executive shall be entitled to the following payments and other benefits:

(i) on the date of termination (except as specified in clause (D)), the Company shall pay to the Executive, if the Executive instructs the Company in writing, a lump sum amount equal to (A) any portion of unpaid Base Compensation then due for periods prior to the effective date of termination; (B) any Bonus earned and not yet paid through the date of termination; and (D) within 2-1/2 months following submission of proper expense reports by Executive, all expenses reasonably and necessarily incurred by Executive in connection with the business of the Company prior to the date of termination;

(ii) on the date of termination the Company shall pay to the Executive, if the Executive instructs the Company in writing, a lump sum amount equal to twelve (12) months of Executive's Base Compensation then in effect as of the day of termination and reimburse Executive for the COBRA premiums he pays to maintain health insurance coverage for twelve (12) months following the date of termination;

(iii) notwithstanding any provision of any stock incentive plan, stock option agreement, realization bonus, restricted stock agreement or other agreement relating to capital stock of the Company, all of the shares that are then unvested shall immediately vest and, with respect to all options, warrants and other convertible securities of the Company beneficially held by Executive, become fully exercisable for (A) a period of six months following the date of termination only if at the time of such termination there is a Change of Control transaction

Pending (as defined in Section 9(d) below) or (B) if clause (A) does not apply, then such period of time set forth in the agreement evidencing the security; and

(iv) Severance benefits under this Section 9(c) and Section 9(b) above shall be mutually exclusive and severance under one such section shall prohibit severance under the other.

(d) Definition of "Pending." For purposes of Section 9(c), a Change of Control transaction shall be deemed to be "Pending" each time any of the following circumstances exist: (A) the Company and a third party have entered into a confidentiality agreement that has been signed by a duly-authorized officer of the Company and that is related to a potential Change of Control transaction; or (B) the Company has received a written expression of interest from a third party, including a binding or non-binding term sheet or letter of intent, related to a potential Change of Control transaction.

(e) If Executive's employment terminates for any reason, Executive shall have no obligation to seek other employment and there shall be no setoff against amounts due to him under this Agreement for income or benefits from any subsequent employment.

10. Indemnification. The Company agrees to indemnify and hold harmless Executive, to the fullest extent permitted by the laws of the State of Connecticut and applicable federal law in effect on the date hereof, or as such laws may be amended to increase the scope of such permitted indemnification, against any and all Losses if Executive was or is or becomes a party to or participant in, or is threatened to be made a party to or participant in, any Claim by reason of or arising in part out of an Indemnifiable Event, including, without limitation, Claims brought by or in the right of the Company, Claims brought by third parties, and Claims in which Executive is solely a witness. For purposes of this section, "Claim" means any proceeding, threatened or contemplated civil, criminal, administrative or arbitration action, suit or proceeding and any appeal therein and any inquiry or investigation which could lead to such action, suit or proceeding. "Indemnifiable Event" means any event or occurrence, whether occurring before, on or after the effective date of this Agreement, related to the fact that Executive was a director, officer, employee or agent of the Company or by reason of an action or inaction by Company in any such capacity whether or not serving in such capacity at the time any Loss is incurred for which indemnification can be provided under this Agreement. "Losses" means any and all damages, losses, liabilities, judgments, fines, penalties (whether civil, criminal or other), ERISA excise taxes, amounts paid or payable in settlement, including any interest, assessments, reasonable expenses, including attorney's fees, experts' fees, court costs, transcript costs, travel expenses, printing, duplication and binding costs, and telephone charges, and all other charges paid or payable in connection with investigating, defending, being a witness in or participating (including on appeal), or preparing to defend, be a witness or participate in, any Claim. The Company further agrees to maintain a directors and officers liability insurance policy covering Executive in an amount, and on terms no less favorable to him than the coverage the Company provides other senior executives and directors.

11. Successors. Any successor to the Company (whether direct or indirect and whether by purchase, lease, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets or otherwise pursuant to a Change of Control shall assume

the Company's obligations under this Agreement and agree expressly in writing to perform the Company's obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company's business and/or assets (including any parent company to the Company), whether or not in connection with a Change of Control, which becomes bound by the terms of this Agreement by operation of law or otherwise.

12. Notices. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered (if to the Company, addressed to its Secretary at the Company's principal place of business on a non-holiday weekday between the hours of 9 a.m. and 5 p.m.; if to Executive, via personal service to his last known residence) or three business days following the date it is mailed by U.S. registered or certified mail, return receipt requested and postage prepaid.

13. Confidential Information. Executive recognizes and acknowledges that by reason of Executive's engagement by and service to the Company before, during and, if applicable, after the Engagement Term, Executive will have access to certain confidential and proprietary information relating to the Company's business, which may include, but is not limited to, trade secrets, trade "know-how," product development techniques and plans, formulas, customer lists and addresses, financing services, funding programs, cost and pricing information, marketing and sales techniques, strategy and programs, computer programs and software and financial information (collectively referred to herein as "Confidential Information"). Executive acknowledges that such Confidential Information is a valuable and unique asset of the Company and Executive covenants that he will not, unless expressly authorized in writing by the Company, at any time during the course of Executive's engagement use any Confidential Information or divulge or disclose any Confidential Information to any person, firm or corporation except in connection with the performance of Executive's duties for and on behalf of the Company and in a manner consistent with the Company's policies regarding Confidential Information. Executive also covenants that at any time after the termination of such engagement, directly or indirectly, he will not use any Confidential Information or divulge or disclose any Confidential Information to any person, firm or corporation, unless such information is in the public domain through no fault of Executive or except when required to do so by a court of law, by any governmental agency having supervisory authority over the business of the Company or by any administrative or legislative body (including a committee thereof) with apparent jurisdiction to order Executive to divulge, disclose or make accessible such information. All written Confidential Information (including, without limitation, in any computer or other electronic format) which comes into Executive's possession during the course of Executive's engagement shall remain the property of the Company. Unless expressly authorized in writing by the Company, Executive shall not remove any written Confidential Information from the Company's premises, except in connection with the performance of Executive's duties for and on behalf of the Company and in a manner consistent with the Company's policies regarding Confidential Information. Upon termination of Executive's engagement, the Executive agrees to immediately return to the Company all written Confidential Information (including, without limitation, in any computer or other electronic format) in Executive's possession. As a condition of Executive's engagement with the Company and in order to protect the Company's interest in such proprietary information, the Company shall require Executive's execution of a

Confidentiality Agreement and Inventions Agreement in the form attached hereto as Exhibit "A", and incorporated herein by this reference

14. Non-Competition; Non-Solicitation.

(a) Non-Compete. The Executive hereby covenants and agrees that during the Engagement Term and for a period of one year following the Expiration Date, the Executive will not, without the prior written consent of the Company, directly or indirectly, on his own behalf or in the service or on behalf of others, whether or not for compensation, engage in any business activity, or have any interest in any person, firm, corporation or business, through a subsidiary or parent entity or other entity (whether as a shareholder, agent, joint venturer, security holder, trustee, partner, Executive, creditor lending credit or money for the purpose of establishing or operating any such business, partner or otherwise) with any Competing Business in the Covered Area. For the purpose of this Section 14(a), (i) "Competing Business" means any business competing with any products and/or services of the Company or its affiliates that exist or are in the process of being formed or acquired as of the Expiration Date and (ii) "Covered Area" means all geographical areas of the United States and other foreign jurisdictions where Company then has offices and/or sells its products directly or indirectly through distributors and/or other sales agents. Notwithstanding the foregoing, any activities associated with MeaHealthXcel, LLC shall be excluded from this Section 14(a) and the Executive may own shares of companies whose securities are publicly traded, so long as ownership of such securities do not constitute more than one percent (1%) of the outstanding securities of any such company.

(b) Non-Solicitation. The Executive further agrees that during the Engagement Term and for a period of one (1) year from the Expiration Date, the Executive will not divert any business of the Company and/or its affiliates or any customers or suppliers of the Company and/or the Company's and/or its affiliates' business to any other person, entity or competitor, or induce or attempt to induce, directly or indirectly, any person to leave his or her employment with the Company and/or its affiliates; provided, however, that the foregoing provisions shall not apply to a general advertisement or solicitation program that is not specifically targeted at such employees.

(c) Remedies. The Executive acknowledges and agrees that his obligations provided herein are necessary and reasonable in order to protect the Company and its affiliates and their respective business and the Executive expressly agrees that monetary damages would be inadequate to compensate the Company and/or its affiliates for any breach by the Executive of his covenants and agreements set forth herein. Accordingly, the Executive agrees and acknowledges that any such violation or threatened violation of this Section 14 will cause irreparable injury to the Company and that, in addition to any other remedies that may be available, in law, in equity or otherwise, the Company and its affiliates shall be entitled to obtain injunctive relief against the threatened breach of this Section 14 or the continuation of any such breach by the Executive without the necessity of proving actual damages.

15. Engagement Relationship. Executive's engagement with the Company will be "at will," meaning that either Executive or the Company may terminate Executive's engagement at any time and for any reason, with or without Cause or Good Reason. Any contrary representations that may have been made to Executive are superseded by this Agreement. This

is the full and complete agreement between Executive and the Company on this term. Although Executive's duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of Executive's engagement may only be changed in an express written agreement signed by Executive and a duly authorized officer of the Company (other than Executive).

16. Miscellaneous Provisions.

(a) Modifications; No Waiver. No provision of this Agreement may be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by Executive and by an authorized officer of the Company (other than Executive). No waiver by either

party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(b) Entire Agreement. This Agreement supersedes all prior agreements and understandings between the parties, oral or written. No modification, termination or attempted waiver shall be valid unless in writing, signed by the party against whom such modification, termination or waiver is sought to be enforced.

(c) Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the internal substantive laws, but not the conflicts of law rules, of the State of Connecticut.

(d) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, and may be delivered by facsimile or other electronic means, but all of which shall be deemed originals and taken together will constitute one and the same Agreement.

(f) Headings. The headings of the Articles and Sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

(g) Construction of Agreement. In the event of a conflict between the text of the Agreement and any summary, description or other information regarding the Agreement, the text of the Agreement shall control.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year first above written.

COMPANY: BioXcel Corporation

By: /s/ Krishnan Nandabalan
Name: Krishnan Nandabalan
Title: President

EXECUTIVE: /s/ Vimal D. Mehta

Exhibit 10.8

STOCK PURCHASE AGREEMENT

THIS AGREEMENT, dated as of , (this "Agreement"), is entered into by and between BioXcel Therapeutics, Inc., a Delaware corporation (the "Company"), and the investors identified on Schedule 1 attached hereto (the "Investors").

WHEREAS, the Investors desire to purchase shares of the Company's common stock, par value $0.001 per share (the "Common Stock"), and the Company desires to sell Common Stock to the Investors pursuant to the terms set forth in this Agreement.

NOW, THEREFORE, the parties agree as follows:

1. Purchase and Sale. Subject to the provisions of this Agreement, on the Closing Date (as hereinafter defined) the Company shall sell to the Investors, and the Investors shall purchase from the Company, the number of shares of Common Stock set forth opposite such Investor's name on Schedule 1 annexed hereto, at a purchase price of $ per share.

2. Closing of Purchase and Sale.

2.1. Closing; Closing Date. The purchase and sale of the Common Stock pursuant to Section 1 (the "Closing") shall take place at the offices of BioXcel Therapeutics Inc., 780 East Main Street, Branford CT, or at such other place as may be agreed upon by the Company and the Investors, at 11:00 a.m. local time on the date of this Agreement or at such other time as may be agreed upon by the Company and the Investors (the "Closing Date").

2.2. Transactions at Closing. At the Closing, the Company shall deliver to the Investors or their representatives certificates in the name of each Investor representing the Common Stock being purchased hereunder and each Investor shall deliver to the Company, by check or wire transfer of immediately available funds, the amount of the purchase price set forth opposite such Investor's name on Schedule 1 hereto, or such other consideration agreed upon by the Company.

3. Representations and Warranties of the Company. The Company represents and warrants, as of the date of this Agreement, that:

3.1. Organization, Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has full corporate power and authority to own, lease and operate its property and assets and to conduct its business as proposed to be conducted by it. The Company has all requisite corporate power and authority to enter into and perform its obligations under this Agreement and to carry out the transactions contemplated by this Agreement. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would have a material adverse effect on the Company.

3.2. Capitalization. The authorized capital stock of the Company as of , 2017, consisted of 100,000 shares of Common Stock, of which were issued and outstanding. As of , 2017, up to 12,500 shares of Common Stock may be acquired from the Company pursuant to options, warrants, convertible securities or other agreements.

3.3. Validity of Shares. The Common Stock, when issued, sold and delivered in accordance with

the terms of this Agreement, will be duly and validly issued, fully paid and non-assessable.

3.4. Authorization; Approvals. All corporate action on the part of the Company necessary for the authorization, execution, delivery and performance of all its obligations under this Agreement and for the authorization, issuance and delivery of the Common Stock has been (or will be) taken prior to the Closing. This Agreement, when executed and delivered by or on behalf of the Company, will constitute the valid and legally binding obligation of the Company, legally enforceable against the Company in accordance with its terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium , fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally or (b) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies. The Company has obtained or will obtain prior to the Closing, all necessary consents, authorizations, approvals and orders, and has made all registrations, qualifications, designations, declarations or filings with all federal, state or other relevant governmental authorities required on the part of the Company to be made prior to the Closing in connection with the consummation of the transactions contemplated by this Agreement.

3.5. No Conflict with Other Instruments. The execution, delivery and performance of this Agreement will not result in any violation of, be in conflict with, or constitute a default under any terms or provision of: (a) the Company's Certificate of Incorporation, as amended; (b) any judgment, decree or order to which the Company is a party; (c) any agreement, contract, understanding, indenture or other instrument to which the Company is a party, the effect of which would give rise to a material adverse effect on the Company; or (d) any statute, rule or governmental regulation applicable to the Company.

3.6. Fees and Commissions. The Company has not retained, or otherwise authorized to act, any finder, broker, agent, financial advisor or other intermediary (each, an "Intermediary") in connection with the transactions contemplated by this Agreement and the Company shall indemnify and hold harmless the Investors from liability for any compensation to any Intermediary retained or otherwise authorized to act by, or on behalf of, the Company, and the fees and expenses of defending against such liability or alleged liability.

4. Anti-dilution. In the event that, between , 2017 and 2018, the Company issued or issues additional securities at a purchase price of less than $ per share of common stock of Common Stock (a "Dilutive Issuance"), the Investor will be issued additional shares of Common Stock in accordance with the following formula:

$$NS = CS * ((A+C) / (A+B)) – CS$$

Where:

NS = The number of shares of Common Stock the Investor will receive in addition to the shares issued under this Agreement;

CS = The number of shares of Common Stock issued to the Investor under this Agreement;

A = The number of shares of Common Stock deemed to be outstanding immediately prior to a Dilutive Issuance. This includes all outstanding Common Stock, all outstanding preferred shares on an as-converted basis, all outstanding options on an as-exercised basis and all other securities convertible into Common Stock;

B = The aggregate consideration received by the Company with respect to a Dilutive Issuance, divided by$; and

C = The number of new shares of Common Stock issued in a Dilutive Issuance.

The Investor's rights under this Section 4 shall terminate upon the consummation of an initial public offering of the Company's equity securities and the listing of the Company's equity securities on a national securities exchange.

5. Representations and Warranties of the Investors. Each Investor, severally and not jointly, represents and warrants, as of the date hereof, that:

5.1. Authorization. The Investor has full power and authority to enter into this Agreement. This Agreement, when executed and delivered by the Investor, will constitute a valid and legally binding obligation of the Investor, enforceable against the Investor in accordance with its terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium or fraudulent conveyance and any other laws of general application relating to or affecting the enforcement of creditors' rights generally or (b) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

5.2. Purchase Entirely for Own Account. The Investor understands that the shares of Common Stock (the "Shares") to be acquired by the Investor are "restricted securities" and have not been registered under the Securities Act or any applicable state securities law and is acquiring the Shares as principal for its own account and not with a view to or for distributing or reselling such Shares or any part thereof in violation of the Securities Act or any applicable state securities law, has no present intention of distributing any of such Shares in violation of the Securities Act or any applicable state securities law and has no direct or indirect arrangement or understandings with any other persons to distribute or regarding the distribution of such Shares in violation of the Securities Act or any applicable state securities law. The Investor is acquiring the Shares hereunder in the ordinary course of its business.

5.3. Disclosure of Information. The Investor has had an opportunity to discuss the Company's, business, management, financial affairs and the terms and conditions of the offering of the Shares with the Company's management and has had an opportunity to review the Company's facilities, and the Investor has been furnished with copies of documents relating thereto that the Investor has requested. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Investors to rely thereon.·

5.4. Lack of Liquidity. The Investor is presently able (a) to bear the economic risk of the Investor's investment in the Shares, (b) to hold the Shares for an indefinite period of time and (c) to afford a complete loss of the Investor's investment. The Investor has sufficient liquid assets so that the illiquidity associated with the Investor's investment in the Shares will not cause any financial difficulties for the Investor or affect the Investor's ability to provide for the Investor's current needs and possible financial contingencies. The Investor is able to bear the high degree of economic risk of this investment including, but not limited to, the possible complete loss of Investor's entire investment and the limited transferability of the Shares, which may make liquidation of this investment impossible for the indefinite future. The Investor's commitment to speculative investments (including the investment by the Investor in the Shares) is reasonable in relation to the Investor's net worth or investment portfolio.

5.5. Knowledge and Experience. The Investor has such knowledge and experience in financial and business matters that the Investor is capable of evaluating the merits and risks of a speculative investment which involves a high degree of risk of loss of the entire investment,

such as an investment in the Shares, and of making an informed investment decision with respect thereto.

5.6. Restricted Securities. The Investor understands that the Shares have not been, and will not be, registered under the Securities Act of 1933, as amended (the "Securities Act"), by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Investor's representations as expressed herein. The Investor understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Investor must hold the Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities or an exemption from such registration and qualification requirements is available. The Investor acknowledges that the Company has no obligation to register or qualify the Shares for resale. The Investor further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Shares and on requirements relating to the Company which are outside of the Investor's control, and which the Company is under no obligation and may not be able to satisfy.

5.7. No Public Market. The Investor understands that no public market now exists for the Shares and that the Company has made no assurances that a public market will ever exist for the Shares.

5.8. Legends. The Investor understands that the Shares and any securities issued in respect of or exchange for the Shares may bear, in addition to any legend required by the securities laws of any state to the extent such laws are applicable to the Shares represented by the certificate so legended, a legend similar to the following:

5.8.1. "THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "SECURITIES ACT"), AND HAVE BEEN ISSUED IN RELIANCE ON AN EXEMPTION FROM REGISTRATION PROVIDED FROM REGULATIONS UNDER THE SECURITIES ACT. THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY NOT BE OFFERED OR SOLD, DIRECTLY OR INDIRECTLY, EXCEPT (A) PURSUANT TO AND IN CONFORMITY WITH (I) AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR (II) ANY THEN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS UNDER THE SECURITIES ACT AND (B) PURSUANT TO AND IN CONFORMITY WITH ANY APPLICABLE STATE SECURITIES OR BLUE SKY LAWS. OTHER THAN PURSUANT TO AND IN CONFORMITY WITH AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, NO SUCH OFFER OR SALE OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY BE MADE UNLESS, IF REQUESTED BY IT, BIOXCEL THERAPEUTICS, INC. HAS RECEIVED A WRITTEN LEGAL OPINION OF COUNSEL (SUCH COUNSEL AND OPINION REASONABLY ACCEPTABLE TO IT) TO THE EFFECT THAT SUCH OFFER OR SALE DOES NOT VIOLATE THE SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES OR BLUE SKY LAWS."

5.9. Accredited Investor. The Investor is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

5.10. Foreign Investors. If the Investor is not a United States person (as defined by Section 7701(a)(30) of the Code), the Investor hereby represents that it has satisfied itself

as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Shares or any use of this Agreement, including (a) the legal requirements within its jurisdiction for the purchase of the Shares, (b) any foreign exchange restrictions applicable to such purchase, (c) any governmental or other consents that may need to be obtained and (d) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of the Shares. The Investor's subscription and payment for and continued beneficial ownership of the Shares will not violate any applicable securities or other laws of the Investor's jurisdiction.

5.11. No General Solicitation. Neither the Investor, nor any of its officers, directors, managers, employees, agents, stockholders, members or partners has, either directly or indirectly, including through a broker or finder (a) engaged in any general solicitation or, (b) published any advertisement in connection with the offer and sale of the Shares.

5.12. Exculpation Among Investors. The Investor acknowledges that it is not relying upon any person, other than the Company and its officers and directors, in making its investment or decision to invest in the Company. The Investor agrees that neither any Investor nor the respective controlling persons, officers, directors, partners, agents or employees of any Investor shall be liable to any other Investor for any action heretofore taken or omitted to be taken by any of them in connection with the purchase of the Shares.

5.13. Residence. If the Investor is an individual, then the Investor resides in the state, province or other jurisdiction identified in the address of the Investor set forth on Schedule 1; if the Investor is a partnership, corporation, limited liability company or other entity, then the office, or offices of the Investor in which its principal place of business is located is identified in the address or addresses of the Investor set forth on Schedule 1. The Investor is a citizen of the United States of America or otherwise qualifies as a holder of stock of an S corporation under the Code.

6. [Registration Rights. If, at any time after the Closing, the Company shall propose to file with the Commission a registration statement under the Securities Act (whether for itself or in connection with a sale of securities by any other stockholder) other than on Form S-1 in connection with the Company's IPO (as defined herein), Forms S-4 or S-8 (or any successor to such forms), the Company shall give notice to each Investor and include in such registration statement (and the prospectus included therein) all or any part of the Shares that such Purchaser requests to be registered; provided, however, that the Company shall not be required to register the resale of any Shares pursuant to that are eligible for resale pursuant to Rule 144 under the Securities Act without any requirement for the Company to maintain current public information and without any limitation on volume or manner of sale.]

7. [Reports Under Exchange Act. With a view to making available to the Investor the benefits of Rule 144 and any other rule or regulation of the Commission that may at any time permit the Investor to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

7.1. make and keep available adequate current public information, as those terms are understood and defined in Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

7.2. use commercially reasonable efforts to file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Securities Exchange Act of 1934, as amended (the "Exchange Act") (at any time after the Company has become subject to such reporting requirements); and

7.3. furnish to the Investor, so long as the Investor owns any Shares, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); and (ii) such other information as may be reasonably requested in availing the Investor of any rule or regulation of the Commission that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).]

8. Lock-Up Agreement. Investors agree that, if Company completes an IPO (the "IPO") on or before December 31, 2018, Investors will enter into a lock-up agreement for the benefit of such underwriter(s) in accordance with this Section (the "Lock-Up Agreement"). Pursuant to such Lock-Up Agreement, Investors will agree that they shall not, during the period beginning on the date of the prospectus for the delivery of shares of Common Stock pursuant to the IPO and ending either (i) one hundred eighty (180) days thereafter, or (ii) if any Company director, executive officer or stockholder is subject to any lock-up agreement that ends on a date earlier than one hundred eighty (180) days after the date of the prospectus for the delivery of shares of Common Stock pursuant to the IPO, such earlier date: (a) offer, pledge, sell, announce the intention to sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, any shares of

Common Stock; (b) enter into any swap or other arrangement that transfers to another Person, in whole or in part, any of the economic consequences of ownership of shares of Common Stock; or (c) make any demand for, or exercise any right with respect to, the registration of any shares of Common Stock; in any case, whether any such transaction is to be settled by delivery of shares of Common Stock or other securities, in cash or otherwise. In addition, upon the Closing and prior to the earlier of (x) the effectiveness of the restrictions set forth in the Lock-Up Agreement, or (y) December 31, 2018, Investors agree that it shall not transfer or dispose of any shares of Common Stock (other than pursuant to this Agreement) unless and until the proposed transferee(s) has agreed in writing to be bound by this Section with respect to the shares of Common Stock acquired by such transferee. No transfer in violation of the preceding sentence shall be of any force or effect, and no such transfer shall be made or recorded on the books of Company. Investor acknowledges that its covenants in this Section are a material inducement for Company to enter

into this Agreement and to consummate this transaction.

9. Modifications; Waiver Notices. All notices, requests, consents and other communications herein shall be in writing and shall be deemed to be delivered (i) on the date delivered, if personally delivered; (ii) on the business day after the date sent, if sent by recognized overnight courier service and (iii) on the fifth day after the date sent, if mailed by first-class certified mail, postage prepaid and return receipt requested , as follows, or to such other addresses as each of the parties hereto may provide from time to time in writing to the other parties:

If to the Company:

BioXcel Therapeutics Inc.
780 East Main Street
Branford, Connecticut 06405
Attention: Company Secretary

If to the Investor(s):

At their respective addresses set forth in Schedule 1 hereto.

10. Modifications; Waiver. Neither this Agreement nor any provision hereof may be changed, waived, discharged or terminated orally or in writing, except that any provision of this Agreement may be amended and the observance of any such provision may be waived (either generally or in a particular instance and either retroactively or prospectively) with (but only with) the written consent of (a) the Company and (b) the holders of at least a majority of the Shares, provided, that, in the event that any modification, amendment or waiver of any terms of this Agreement that materially adversely affects the obligations and/or rights of an Investor hereunder in a manner materially different than other Investors hereto, such modification, amendment or waiver shall also require the written consent of the adversely affected Investor.

11. Entire Agreement; Aggregation. This Agreement, together with the schedule attached hereto and made a part hereof contains the entire agreement between the parties with respect to the transactions contemplated hereby, and supersedes all negotiations, agreements, representations, warranties, commitments, whether in writing or oral, prior to the date hereof.

12. Successors and Assigns. Except as otherwise expressly provided in this Agreement, all of the terms of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective successors, assigns and permitted transferees of the parties hereto.

13. Execution and Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original, and all such counterparts together shall constitute one instrument.

14. Governing Law and Severability. This Agreement shall be governed by the internal laws of the State of Connecticut, without regard to principles of conflicts of law. In the event any provision of this Agreement or the application of any such provision to any party shall be held by a court of competent jurisdiction to be contrary to law, the remaining provisions of this Agreement shall remain in full force and effect.

15. Headings. The descriptive headings of the sections hereof and the schedule hereto are inserted

for convenience only and do not constitute a part of this Agreement.

[Signature Pages Follow]

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

BIOXCEL THERAPEUTICS, INC.

Vimal Mehta, CEO

INVESTOR(S)

Name:

By:

SCHEDULE 1
Investors

Name and Address	Purchase Price	Number of Shares

Exhibit 10.9

FIRST AMENDMENT TO EXECUTIVE AGREEMENT

This AMENDMENT (the "Amendment") to the Executive Agreement (the "Agreement"), dated September 1, 2014, by and between BioXcel Corporation, a Delaware corporation (the "Company") and Vimal Mehta (the "Executive") is effective as of September 1, 2017 (the "Amendment Effective Date"). Capitalized terms not defined herein shall have the meanings assigned to them in the Agreement.

WITNESSETH:

WHEREAS, on September 1, 2014, Executive and the Company entered into the Agreement; and

WHEREAS, the parties now desire to amend the Agreement to increase Executive's Base Compensation;

NOW, THEREFORE, in consideration of and for the mutual promises and covenants contained herein, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Agreement is hereby amended as follows:

1. Section 4 of the Agreement is hereby amended such that Executive's Base Compensation shall be increased from $125,000 to $240,000 on the Amendment Effective Date.

2. Section 7 of the Agreement is hereby amended such that Executive's car lease allowance from the Company shall be increased from up to $750 per month to $1,250 per month on the Amendment Effective Date.

2. Miscellaneous

(A) This Amendment shall be construed and interpreted in accordance with the laws of the State of Connecticut without giving effect to the conflict of laws rules thereof or the actual domiciles of the parties.

(B) Except as amended hereby, the terms and provisions of the Agreement shall remain in full force and effect, and the Agreement is in all respects ratified and confirmed. On and after the date of this Amendment, each reference in the Agreement to the "Agreement", "hereinafter", "herein", "hereinafter", "hereunder", "hereof", or words of like import shall mean and be a reference to the Agreement as amended by this Amendment.

(C) This Amendment may be executed in one or more counterparts, each of which shall be deemed an original and all of which taken together shall constitute a single Amendment.

[signature page follows]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the 21st day of December, 2017.

BIOXCEL CORPORATION

By: /s/ Krishnan Nandabalan
Name: Krishnan Nandabalan
Title: President and CSO

By: /s/ Vimal Mehta
Name: Vimal Mehta
Title: CEO

Exhibit 10.10

EXECUTIVE EMPLOYMENT AGREEMENT

This Executive Agreement (the "Agreement") is made and entered into effective as of , 2018 (the "Effective Date"), by and between Vimal Mehta, Ph.D. (the "Executive") and BioXcel Therapeutics, Inc., a Delaware corporation (the "Company").

RECITALS

WHEREAS, the Company wishes to retain Executive as its Chief Executive Officer;

WHEREAS, the Company wishes to secure the services of Executive upon the terms and conditions hereinafter set forth, and Executive wishes to render such services to the Company upon the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto, intending to be legally bound, agree as follows:

AGREEMENT

1. Definition of Terms. The following terms referred to in this Agreement shall have the following meanings:

(a) "Affiliate" means, with respect to any person, a person that directly or indirectly controls, is controlled by, or is under common control with such person.

(b) "Cause" shall mean any of the following: (i) a material breach or material default (including, without limitation, any material dereliction of duty) by Executive of this Agreement or any agreement between Executive and the Company, or a repeated failure by Executive to follow the lawful direction of the Company's Board of Directors (the "Board"); (ii) Executive's gross negligence, willful misfeasance or breach of fiduciary duty to the Company or its affiliates; (iii) the commission by Executive of an act or omission involving fraud, embezzlement, misappropriation or dishonesty in connection with Executive's duties to the Company or its affiliates; or (iv) Executive's conviction of, indictment for, or pleading guilty or *nolo contendere* to, any felony or other crime involving fraud or moral turpitude. For purposes of this subsection, no act or failure to act on Executive's part shall be considered "willful" unless done, or omitted to be done, by Executive not in good faith and without reasonable belief that his action or omission was in the best interest of the Company. Any determination of whether Cause exists shall be made by the Board in its sole and absolute discretion. Provided, however, that before a termination for Cause pursuant to Section 1(b) is effective, Executive will be given written notice of the particular circumstances constituting the basis for the termination for Cause and thirty (30) calendar days to cure those particular circumstances (the "Executive's Cure Period"). Any determination as to whether Executive successfully cured the circumstances at issue shall be made by the Board in its sole and absolute discretion. Failing such cure, Executive's termination for Cause pursuant to Section 1(b) shall be effective on the day immediately following the expiration of Executive's Cure Period.

(c) "Change of Control" shall mean the occurrence of any of the following

events:

(i) the date on which any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) obtains "beneficial ownership" (as defined in Rule 13d-3 of the Exchange Act) or a pecuniary interest in fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities ("Voting Stock");

(ii) the consummation of a merger, consolidation, reorganization, or similar transaction involving the Company, other than a transaction: (1) in which substantially all of the holders of the Voting Stock immediately prior to such transaction hold or receive directly or indirectly fifty percent (50%) or more of the voting stock of the resulting entity or a parent company thereof, in substantially the same proportions as their ownership of the Company immediately prior to the transaction; or (2) in which the holders of the Company's capital stock immediately before such transaction will, immediately after such transaction, hold as a group on a fully diluted basis the ability to elect at least a majority of the authorized directors of the surviving entity (or a parent company); or

(iii) there is consummated a sale, lease, license or disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries, other than a sale, lease, license or disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries to an entity, fifty percent (50%) or more of the combined voting power of the voting securities of which are owned by stockholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale, lease, license or disposition.

provided that, to the extent required to avoid taxes or penalties under Section 409A of the Internal Revenue Code, such event or transaction shall only constitute a Change in Control if it also constitutes a "change in control event" as defined in Treas. Reg. § 1.409A-3(i)(5)(i).

(d) "Disability" means a physical or mental disability, which prevents Executive from performing Executive's duties under this Agreement for a period of at least 120 consecutive days in any twelve month period or 150 non consecutive days in any twelve month period.

(e) "Good Reason" shall mean without Executive's express written consent any of the following: (i) a significant reduction of Executive's duties, position or responsibilities relative to Executive's duties, position or responsibilities in effect immediately prior to such reduction, or the removal of Executive from such position, duties or responsibilities; (ii) any action or inaction that constitutes a material breach by the Company or any successor to the Company of its obligations to Executive under this Agreement or any other agreement between Executive and the Company, or (iii) a relocation of Executive's worksite by more than 25 miles. Provided, however, that before a termination for Good Reason pursuant to Section 1(e) is effective, Executive will provide the Company with written notice of the particular circumstances constituting the basis for his termination with Good Reason within ninety (90) following the initial occurrence thereof and will provide the Company with thirty (30) calendar days to cure these particular circumstances (the

"Company's Cure Period"). Failing such cure, Executive's termination of employment for Good Reason shall be effective on the day immediately following the expiration of the Company's Cure Period.

(f) "IPO" shall mean on or before June 30, 2018, a firm commitment underwritten public offering of shares of common stock (and any other securities of the Company that may be sold along with such shares of common stock in any such public offering).

2. Duties and Scope of Position. During the Employment Term (as defined below), Executive will serve as Chief Executive Officer of the Company, reporting solely and directly to the Board, and assuming and discharging such responsibilities as are commensurate with Executive's position. During the Employment Term, Executive will provide services in a manner that will faithfully and diligently further the business of the Company and will devote all of Executive's business time, attention and energy thereto, excepting time reasonably devoted to the affairs of Bioxcel Corporation and its Affiliates. Executive may not serve as a director on any entity's board of directors (other than Bioxcel Corporation and its Affiliates) without prior written consent of the Board, which consent may be withheld by the Company in its sole and absolute discretion. Executive has been appointed to serve as a member of the Board as of the Effective Date (defined below) and the Company will nominate Executive for re-election to the Board upon any expiration of his term of service as a director that occurs during his employment by the Company.

3. Employment Term. The term of Executive's employment under this Agreement shall commence as of the date above (the "Effective Date") and shall continue for a period of two (2) years, unless earlier terminated in accordance with Section 9 hereof. The term of Executive's employment shall be automatically renewed for successive one (1) year periods until Executive or the Company delivers to the other party a written notice of their intent not to renew the "Employment Term," such written notice to be delivered at least ninety (90) days prior to the expiration of the then-effective "Employment Term" as that term is defined below. The period commencing as of the Effective Date and ending two (2) years from the Effective Date or such later date to which the term of Executive's employment under this Agreement shall have been extended is referred to herein as the "Employment Term".

4. Base Compensation. Initially, the Company shall pay to Executive a base compensation (the "Base Compensation") of $240,000 per year (prorated for any partial year), payable in accordance with the Company's regular payroll practices and shall be subject to all applicable tax withholdings and deductions. The Base Compensation shall be increased to $450,000 per year (prorated for any partial year) after an IPO, less applicable tax withholdings and deductions. The Board or its compensation committee shall review Executive's performance from time to time for purposes of, among other things, determining the appropriateness of increasing his Base Compensation hereunder. For purposes of the Agreement, the term "Base Compensation" as of any point in time shall refer to the Base Compensation as increased pursuant to this Section 4.

5. Bonus.

(a) Target Bonus. If the Company completes an IPO, then Executive will be eligible to receive an annual bonus (the "Bonus") with a target amount equal to 50% of Base Compensation. The actual amount of such Bonus, if any, will be determined based upon the Company's achievement of performance milestones for each fiscal year (in each case, the "Target Year"). The performance milestones referenced in this Section 5 for each Target Year

shall be mutually agreed upon by Executive and either the Board or its compensation committee. Such performance milestones shall be established by the last day of the third month of the Target Year. If Executive and the Board or the compensation committee are unable to mutually agree upon such performance milestones, then the Company shall determine the performance milestones in its sole and absolute discretion. The Bonus, if any, shall be paid by the fifteenth day of the second month of the fiscal year immediately following the Target Year. Except as otherwise provided in the last sentence of this paragraph, the Bonus, if any, will not be deemed "earned" until the date that it is paid. Accordingly, Executive must be employed by the Company on the Bonus payment date in order to be eligible for any such payment. In addition, Executive will be entitled to such payment if his employment ceases following completion of the applicable Target Year (but before the Bonus payment date) due to his death, Disability or a reason described below in Section 8(b).

(b) IPO Bonus. Executive shall be entitled to a special bonus upon the completion of an IPO ("IPO Bonus"). The IPO Bonus shall be equal to $90,000. The IPO Bonus, if any, will not be deemed "earned" until the date that that the IPO is completed. Accordingly, Executive must be employed by the Company on the date that the IPO is completed in order to be eligible for any such payment. Payment of the IPO Bonus will be made on the first regularly scheduled payroll date that follows the completion of the IPO.

6. Benefits; Vacation Days. (a) The Company will establish an employee healthcare and other benefit plans as soon as commercially practicable after the IPO. During the Employment Term, Executive shall be entitled to participate in all employee benefit plans and programs that the Company decides, in its sole and absolute discretion, to make available to the Company's senior level executives as a group or to its employees generally, as such plans or programs may be in effect from time to time.

(b) During the Employment Period, Executive shall be entitled to twenty (20) vacation days per year, as well as holidays, sick days and personal days in accordance with the Company's policies, as such policies may be amended from time to time. Any unused vacation, holiday, sick or personal days earned in one calendar year may not be used in any subsequent calendar year. Upon the termination of the Executive's employment with the Company, no cash shall be paid in lieu of accrued but unused vacation, holiday, sick or personal days.

7. Termination.

(a) Termination by the Company. The Company may terminate Executive's employment immediately for Cause. Provided, however, that if the Company seeks to terminate Executive's employment for Cause, then Executive's termination shall not be effective until the day immediately following the expiration of the Executive's Cure Period. Except as otherwise set forth in Section 9(c) below, the Company must provide Executive with thirty (30) days advance written notice of its decision to terminate Executive's employment without Cause.

(b) Termination by Executive. Executive may terminate his employment for Good Reason, provided that, such termination for Good Reason shall not be effective until the day immediately following the expiration of the Company's Cure Period. Executive must provide the Company with

ninety (90) days advance written notice of his decision to terminate his employment without Good Reason. Following its receipt of Executive's advance written

notice of Executive's decision to terminate his employment without Good Reason, the Company may, in its sole and absolute discretion, decide to render Executive's termination without Good Reason effective at any time prior to the expiration of the ninety (90) day notice period set forth in this Section 9(b).

(c) Termination for Death or Disability. Executive's employment shall terminate automatically upon his death. The Company must provide Executive with ten (10) days advance written notice of its decision to terminate Executive's employment as a result of Executive's Disability.

8. Payments upon Termination.

(a) Termination by the Company for Cause, Death or Disability or by Executive Without Good Reason. In the event that Executive's employment hereunder is terminated: (i) by the Company for Cause; (ii) as a result of Executive's death or Disability; (iii) by Executive without Good Reason; or (iv) as a result of Executive providing the Company with notice of his intent not to renew the Employment Term pursuant to Section 3, then the Company shall pay to Executive (or in the case of death, Executive's estate) any unpaid compensation then due for periods prior to the effective date of Executive's termination. In addition, the Company shall reimburse Executive for all expenses reasonably and necessarily incurred by Executive in connection with the business of the Company prior to the effective date of termination, provided that Executive (or Executive's estate) submit proper expense reports to the Company no later than fourteen (14) days after the effective date of Executive's termination.

(b) Termination by the Company Without Cause or by Executive With Good Reason. In the event that Executive's employment hereunder is terminated by the Company without Cause, by Executive with Good Reason or as a result of the Company providing Executive with notice of its intent not to renew the Employment Term pursuant to Section 3, then the Company shall provide Executive with the same payments and benefits set forth in Section 8(a). Further, provided Executive timely executes a general release of all claims against the Company in a form attached hereto as Exhibit A(a "Release") and the Release becomes effective within 60 days following the date of Executive's termination, then Executive shall also receive: (i) a *pro rata* Bonus for the Target Year in which Executive's termination became effective, payable on the same date that bonuses are payable to other executives of the Company in the year following such Target Year; (ii) continued payment of Executive's Base Compensation during the twenty four (24) month period immediately following Executive's termination on the Company's regularly scheduled payroll dates; (iii) vesting of 50% of any otherwise unvested portion of all equity awards held by Executive immediately prior to his termination date; and (iv) reimbursement for Executive's payment of COBRA premiums until the earlier of (x) the eighteen (18) months following Executive's termination date, and (y) the date Executive obtains other employment that offers substantially comparable medical insurance coverage, payable over such period on the Company's regularly scheduled payroll dates; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the first installment of the payments made under (ii) and (ii) hereof shall not be paid until the second calendar year and shall include all amounts that would have been paid prior to such date if such delay had not applied; and provided, further, if the Company's reimbursement of the COBRA premium contributions as described in (iii) hereof, would subject the Company to any tax or penalty under the Patient

Protection and Affordable Care Act, Section 105(h) of the Internal Revenue Code of 1986, as amended (the "Code") or applicable regulations or guidance issued thereunder, Executive and the Company agree to work together in good faith to restructure such benefit.

(c) Termination Prior to a Change of Control. In the event that (i) the Company terminates Executive's employment without Cause, Executive terminates his employment with Good Reason, or Executive's employment terminates as a result of the Company providing Executive with notice of its intent not to renew the Employment Term pursuant to Section 3 and (ii) a Change of Control is consummated no more than six (6) months following the effective date of Executive's termination, then, in addition to the payments and benefits set forth in Sections 8(a) and 8(b), Executive shall also receive a lump sum payment equal to twelve (12) months of Executive's Base Compensation. In order to receive the payment set forth in this Section 8(c): (i) the Change of Control must have been Pending on the effective date of Executive's termination; and (ii) Executive must execute the Release. The payment shall be made on the first regularly scheduled payroll date following the later of (x) the Change of Control, and (y) the effective date of the Release; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the payment shall not be paid until the second calendar year.

(d) Termination Subsequent to a Change of Control. In the event that (i) the Company terminates Executive's employment without Cause, Executive terminates his employment with Good Reason, or Executive's employment terminates as a result of the Company providing Executive with notice of its intent not to renew the Employment Term pursuant to Section 3 and (ii) a Change of Control is consummated no more than twelve (12) months prior to the effective date of Executive's termination, then, in addition to the payments and benefits set forth in Sections 8(a) and 8(b), Executive shall also receive a lump sum payment equal to twelve (12) months of Executive's Base Compensation. In order to receive the payment set forth in this Section 8(d), Executive must execute the Release. The payment shall be made on the first regularly scheduled payroll date following the effective date of the Release; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the payment shall not be paid until the second calendar year.

(e) Definition of "Pending." For purposes of Section 8(c), a Change of Control transaction shall be deemed to be "Pending" each time any of the following circumstances exist: (A) the Company and a third party have entered into a confidentiality agreement that has been signed by a duly-authorized officer of the Company and that is related to a potential Change of Control transaction; or (B) the Company has received a written expression of interest from a third party, including a binding or non-binding term sheet or letter of intent, related to a potential Change of Control transaction.

9. Directors & Officers Liability Insurance. The Company further agrees to maintain a directors and officers liability insurance policy covering Executive in an amount and on terms no less favorable to him than the coverage the Company provides other senior executives and directors (and, with respect periods following any cessation of Executive's employment, its former senior executives and directors).

10. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the heirs and representatives of Executive and the assigns and successors of the

Company, but neither this Agreement nor any rights or obligations hereunder shall be assignable or otherwise subject to hypothecation by Executive (except by will or by operation of the laws of intestate succession or by Executive notifying the Company that cash payment be made to an affiliated investment partnership in which Executive is a control person) or by Company, except that Company may assign this Agreement to any successor (whether by merger, purchase or otherwise) to all or substantially all of the stock, assets or businesses of Company, and the Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company expressly to assume and agree to perform this Agreement to the same extent that the Company would be required to perform it if no succession had taken place.

11. Notices. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered (if to the Company, addressed to its Secretary at the Company's principal place of business on a non- holiday weekday between the hours of 9 a.m. and 5 p.m.; if to Executive, via personal service to his last known residence) or three business days following the date it is mailed by U.S. registered or certified mail, return receipt requested and postage prepaid.

12. Confidential Information. Executive recognizes and acknowledges that by reason of Executive's employment by and service to the Company before, during and, if applicable, after the Employment Term, Executive will have access to certain confidential and proprietary information relating to the Company's business, which may include, but is not limited to, trade secrets, trade "know-how," product development techniques and plans, formulas, customer lists and addresses, financing services, funding programs, cost and pricing information, marketing and sales techniques, strategy and programs, computer programs and software and financial information (collectively referred to herein as "Confidential Information"). Executive acknowledges that such Confidential Information is a valuable and unique asset of the Company and Executive covenants that he will not, unless expressly authorized in writing by the Company, at any time during the course of Executive's employment use any Confidential Information or divulge or disclose any Confidential Information to any person, firm or corporation except in connection with the performance of Executive's duties for and on behalf of the Company and in a manner consistent with the Company's policies regarding Confidential Information. Executive also covenants that at any time after the termination of such employment, directly or indirectly, he will not use any Confidential Information or divulge or disclose any Confidential Information to any person, firm or corporation, unless such information is in the public domain through no fault of Executive or except when required to do so by a court of law, by any governmental agency having supervisory authority over the business of the Company or by any administrative or legislative body (including a committee thereof) with apparent jurisdiction to order Executive to divulge, disclose or make accessible such information. All written Confidential Information (including, without limitation, in any computer or other electronic format) which comes into Executive's possession during the course of Executive's employment shall remain the property of the Company. Unless expressly authorized in writing by the Company, Executive shall not remove any written Confidential Information from the Company's premises, except in connection with the performance of Executive's duties for and on behalf of the Company and in a manner consistent with the Company's policies regarding Confidential Information. Upon termination of Executive's employment, the Executive agrees to immediately return to the Company all written Confidential Information (including, without limitation, in any computer or other electronic format) in Executive's possession.

13. Non-Competition; Non-Solicitation.

(a) Non-Compete. Executive hereby covenants and agrees that during the his employment by the Company and for a period of one (1) year following the termination of Executive's employment, regardless of the reason for such termination, Executive will not, without the prior written consent of the Company, directly or indirectly, on his own behalf or in the service or on behalf of others, whether or not for compensation, engage in any business activity, or have any interest in any person, firm, corporation or business, through a subsidiary or parent entity or other entity (whether as a shareholder, agent, joint venturer, security holder, trustee, partner, Executive, creditor lending credit or money for the purpose of establishing or operating any such business, partner or otherwise) with any Competing Business in the Covered Area. For the purpose of this Section 13(a), "Competing Business" means the development or sale of pharmaceuticals involving immuno-oncology or neuroscience; provided, however, that Bioxcel Corporation and its Affiliates will not constitute Competing Businesses. For the purpose of this Section 13(a), "Covered Area" means all geographical areas of the United States and other foreign jurisdictions where the Company has offices and/or sells its products directly or indirectly through distributors and/or other sales agents. Notwithstanding the foregoing, Executive may own shares of companies whose securities are publicly traded, so long as ownership of such securities do not constitute more than one percent (1%) of the outstanding securities of any such company.

(b) Non-Solicitation. Executive further agrees that during his employment by the Company and for a period of one (1) year following the termination of Executive's employment, regardless of the reason for such termination, Executive will not divert any business of the Company and/or its affiliates or any customers or suppliers of the Company and/or the Company's and/or its affiliates' business to any other person, entity or competitor, or induce or attempt to induce, directly or indirectly, any person to leave his or her employment with the Company and/or its affiliates; provided, however, that the foregoing provisions shall not apply to a general advertisement or solicitation program that is not specifically targeted at such employees.

(c) Executive acknowledges and agrees that his obligations provided herein are necessary and reasonable in order to protect the Company and its affiliates and their respective business and the Executive expressly agrees that monetary damages would be inadequate to compensate the Company and/or its affiliates for any breach by the Executive of his covenants and agreements set forth herein. Accordingly, Executive agrees and acknowledges that any such violation or threatened violation of Section 12 or 13 will cause irreparable injury to the Company and that, in addition to any other remedies that may be available, in law, in equity or otherwise, the Company and its affiliates shall be entitled to obtain injunctive relief against the threatened breach or the continuation of any such breach by the Executive of Section 12 or 13 without the necessity of proving actual damages. If, at the time of enforcement of Sections 12 or 13, a court shall hold that the duration, scope or area restrictions stated therein are unreasonable under circumstances then existing, the parties agree that the maximum duration, scope or area reasonable under such circumstances shall be substituted for the stated duration, scope or area and that the court shall be allowed to revise the restrictions contained therein to cover the maximum period, scope and area permitted by law.

14. Miscellaneous Provisions.

(a) Modifications; No Waiver. No provision of this Agreement may be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by Executive and by an authorized officer of the Company (other than Executive). No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(b) Entire Agreement. This Agreement supersedes all prior agreements and understandings between the parties, oral or written. No modification, termination or attempted waiver shall be valid unless in writing, signed by the party against whom such modification, termination or waiver is sought to be enforced.

(c) Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the internal substantive laws, but not the conflicts of law rules, of the State of Connecticut.

(d) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, and may be delivered by facsimile or other electronic means, but all of which shall be deemed originals and taken together will constitute one and the same Agreement.

(f) Headings. The headings of the Sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

(g) Construction of Agreement. In the event of a conflict between the text of the Agreement and any summary, description or other information regarding the Agreement, the text of the Agreement shall control.

(h) Withholding. The Company shall be entitled to withhold from any amounts to be paid or benefits provided to Executive hereunder any federal, state, local or foreign withholding, FICA and FUTA contributions. or other taxes. charges or deductions which it is from time to time required to withhold.

(i) Section 409A.

(i) The parties agree that this Agreement shall be interpreted to comply with or be exempt from Section 409A of the Code and the regulations and guidance promulgated thereunder (collectively "Section 409A"), and all provisions of this Agreement shall be construed in a manner consistent with the requirements for avoiding taxes or penalties under Section 409A. In no event whatsoever will the Company be liable for any additional tax, interest or penalties that may be imposed on Executive under Section 409A or any damages for failing to comply with Section 409A.

(ii) A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits considered "nonqualified deferred compensation" under Section 409A upon or following a termination of employment unless and until such termination is also a "separation from service" within the meaning of Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." If Executive is deemed on the date of termination to be a ''specified employee" within the meaning of that term under Section 409A(a)(2)(B), then with regard to any payment or the provision of any benefit that is considered nonqualified deferred compensation under Section 409A payable on account of a "separation from service," such payment or benefit shall be made or provided at the date which is the earlier of (i) the expiration of the six (6)-month period measured from the date of such "separation from service" of Executive, and (ii) the date of Executive's death (the "Delay Period"). Upon the expiration of the Delay Period, all payments and benefits delayed pursuant to this Section 16(i)(ii) (whether they would have otherwise been payable in a single sum or in installments in the absence of such delay) shall be paid or reimbursed on the first business day following the expiration of the Delay Period to Executive in a lump sum and any remaining payments and benefits due under this Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein.

(iii) With regard to any provision herein that provides for reimbursement of costs and expenses or in-kind benefits. except as permitted by Section 409A, (x) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (y) the amount of expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement. or in-kind benefits, to be provided in any other taxable year, provided, that, this clause (y) shall not be violated with regard to expenses reimbursed under any arrangement covered by Code Section 105(b) solely because such expenses are subject to a limit related to the period the arrangement is in effect and (z) such payments shall be made on or before the last day of Executive's taxable year following the taxable year in which the expense occurred.

(iv) For purposes of Section 409A, Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Whenever a payment under this Agreement specifies a payment period with reference to a number of days (e.g., "payment shall be made within thirty (30) days following the date of termination"), the actual date of payment within the specified period shall be within the sole discretion of the Company.

[signature page follows]

IN WITNESS WHEREOF. the undersigned, intending to be legally bound, have executed this Agreement on the date first written above.

BIOXCEL THERAPEUTICS, INC.

By: _____
Name:
Title:

VIMAL MEHTA, PH.D.

_____

EXHIBIT A

RELEASE AGREEMENT

THIS RELEASE AGREEMENT (this "Release") is made by and between VIMAL MEHTA, PH.D ("Executive") and BIOXCEL THERAPEUTICS, INC. (the "Company").

WHEREAS, Executive's service with the Company ceased on [date]; and

WHEREAS, in connection with that cessation of service, Executive is entitled to certain severance benefits, subject to the execution of this Release.

NOW THEREFORE, in consideration of these premises and the mutual promises contained herein, and intending to be legally bound hereby, the parties agree as follows:

1. Consideration. In consideration for Executive's execution of this Release, the Company will provide Executive with the payments, rights and benefits described in Section 8 of the Executive Employment Agreement between Executive and the Company dated , 2018 (the "Employment Agreement"). Executive acknowledges that the payments, rights and benefits described in Section 8 of the Employment Agreement (other than those described in Section 8(a)) would not otherwise be due to him in the absence of his execution of this Release.

2. Executive's Release.

2.1. Executive hereby fully and forever releases and discharges the Company, its parent and subsidiary corporations and each of their predecessors, successors, assigns, stockholders, affiliates, officers, directors, trustees, employees, agents and attorneys, past and present (the Company and each such person or entity is referred to as a "**Released Person**") from any and all claims, demands, liens, agreements, contracts, covenants, actions, suits, causes of action, obligations, controversies, debts, costs, expenses, damages, judgments, orders and liabilities, of whatever kind or nature, direct or indirect, in law, equity or otherwise, whether known or unknown, arising through the date of this Release out of Executive's employment by the Company or the termination thereof, including, but not limited to, any claims for relief or causes of action under the Family and Medical Leave Act of 1993, as amended, 29 U.S.C. §§ 2601 et seq., Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. §§ 2000 et seq., the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 621 et seq. (the "**ADEA**"), the Older Workers Benefit Protection Act, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. §§ 12101 et seq., 42 U.S.C. § 1981, the Worker Adjustment and Retraining Notification Act of 1988, as amended, 29 U.S.C. §§2101 et seq., the Employee Retirement Income Security Act of 1974, as amended, 29 U.S.C. §§ 1001 et seq., or any other federal, state or local statute, ordinance or regulation regarding discrimination in employment and any claims, demands or actions based upon alleged wrongful or retaliatory discharge or breach of contract under any state or federal law.

2.2. Executive expressly represents that he has not filed a lawsuit or initiated any other administrative proceeding against a Released Person and that he has not assigned any

claim against a Released Person. Executive further promises not to initiate a lawsuit or to otherwise pursue any claim against a Released Person.

2.3. Nothing in this Release shall preclude or prevent Executive from filing a charge or complaint with the Equal Employment Opportunity Commission, the National Labor Relations Board, the Occupational Safety and Health Administration, the Securities and Exchange Commission or any other federal, state or local government agency or commission ("**Government Agencies**"). Executive further understands that this Release does not limit Executive's ability to communicate with any Government Agencies or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including providing documents or other information, without notice to the Company. This Release does not limit Executive's right to receive an award for information provided to any Government Agencies. In addition, this Release will not prevent Executive from (i) participating, cooperating, or testifying in any charge, action, investigation, or proceeding with, or providing information to, any self-regulatory organization, governmental agency or legislative body, and/or pursuant to the Sarbanes-Oxley Act, or (ii) filing, testifying, participating in or otherwise assisting in a proceeding relating to an alleged violation of any federal, state or municipal law relating to fraud, or any rule or regulation of the Securities and Exchange Commission or any self-regulatory organization.

2.4. The foregoing will not be deemed to release (a) claims to enforce Sections 8 and 9 of the Employment Agreement, (b) the Company's obligation (pursuant to the last sentence of Section 5(a) of the Employment Agreement) to pay any annual bonus earned but not yet paid with respect to a year ended prior to Executive's cessation of employment, (c) claims for indemnification under the governing documents of the Company or its affiliates, any indemnification agreement or applicable law, (d) claims for the benefit of coverage under applicable directors' and officers' insurance policies, (e) claims for benefits under the terms of the employee benefit plans of the Company or its affiliates, or (f) claims in Executive's capacity as a holder of securities of the Company or its affiliates.

3. **Rescission Right. Executive expressly acknowledges and recites that (a) he has read and understands the terms of this Release in its entirety, (b) he has entered into this Release knowingly and voluntarily, without any duress or coercion; (c) he has been advised orally and is hereby**

advised in writing to consult with an attorney with respect to this Release before signing it; (d) he was provided with at least [21] calendar days after receipt of the Release to consider its terms before signing it; and (e) he is provided 7 calendar days from the date of signing to terminate and revoke this Release, in which case this Release shall be unenforceable, null and void. Executive may revoke this Release during those 7 days by providing written notice of revocation to the Company at [address], Attn: General Counsel.

4. Miscellaneous.

4.1. Severability. Whenever possible, each provision of this Release will be interpreted in such manner as to be effective and valid under applicable law. However, if any provision of this Release is held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provision, and this Release will be reformed, construed and enforced as though the invalid, illegal or unenforceable provision had never been herein contained.

4.2. Entire Agreement. Except as otherwise provided herein, this Release contains the entire agreement and understanding of the parties hereto relating to the subject matter hereof, and merges and supersedes all prior and contemporaneous discussions, agreements and understandings of every nature relating to the subject matter hereof.

4.3. Governing Law. This Release shall be governed by, and enforced in accordance with, the laws of the State of Connecticut, without regard to the application of the principles of conflicts of laws.

4.4. Counterparts and Facsimiles. This Release may be executed, including execution by facsimile signature, in multiple counterparts, each of which shall be deemed an original, and all of which together shall be deemed to be one and the same instrument.

IN WITNESS WHEREOF, the Company has caused this Release to be executed by its duly authorized officer, and Executive has executed this Release, in each case on the date indicated below, respectively.

BIOXCEL THERAPEUTICS, INC.

By: _____
Name:
Title:

VIMAL MEHTA, PH.D.

_____

EXECUTIVE EMPLOYMENT AGREEMENT

This Executive Agreement (the "Agreement") is made and entered into effective as of February 12, 2018 (the "Effective Date"), by and between Frank Yocca, Ph.D. (the "Executive") and BioXcel Therapeutics, Inc., a Delaware corporation (the "Company").

RECITALS

WHEREAS, the Company wishes to retain Executive as its Chief Scientific Officer;

WHEREAS, the Company wishes to secure the services of Executive upon the terms and conditions hereinafter set forth, and Executive wishes to render such services to the Company upon the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto, intending to be legally bound, agree as follows:

AGREEMENT

1. Definition of Terms. The following terms referred to in this Agreement shall have the following meanings:

(a) "Cause" shall mean any of the following: (i) a material breach or material default (including, without limitation, any material dereliction of duty) by Executive of this Agreement or any agreement between Executive and the Company, or a repeated failure by Executive to follow the direction of the Company; (ii) Executive's gross negligence, willful misfeasance or breach of fiduciary duty to the Company or its affiliates; (iii) the commission by Executive of an act or omission involving fraud, embezzlement, misappropriation or dishonesty in connection with Executive's duties to the Company or its affiliates or that is otherwise likely to be materially injurious to the business or reputation of the Company or its affiliates; or (iv) Executive's conviction of, indictment for, or pleading guilty or *nolo contendere* to, any felony or other crime involving fraud or moral turpitude. For purposes of this subsection, no act or failure to act on Executive's part shall be considered "willful" unless done, or omitted to be done, by Executive not in good faith and without reasonable belief that his action or omission was in the best interest of the Company. Any determination of whether Cause exists shall be made by the Company in its sole and absolute discretion. Provided, however, that before a termination for Cause pursuant to Section 1(a)(iii) or (iv) is effective, Executive will be given written notice of the particular circumstances constituting the basis for the termination for Cause and thirty (30) calendar days to cure those particular circumstances (the "Executive's Cure Period"). Any determination as to whether Executive successfully cured the circumstances at issue shall be made by the Company in its sole and absolute discretion. Failing such cure, Executive's termination for Cause pursuant to Section 1(a)(iii) or (iv) shall be effective on the day immediately following the expiration of Executive's Cure Period.

(b) "Change of Control" shall mean the occurrence of any of the following events:

(i) the date on which any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) obtains "beneficial ownership" (as defined in Rule 13d-3 of the Exchange Act) or a pecuniary interest in fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities ("Voting Stock");

(ii) the consummation of a merger, consolidation, reorganization, or similar transaction involving the Company, other than a transaction: (1) in which substantially all of the holders of the Voting Stock immediately prior to such transaction hold or receive directly or indirectly fifty percent (50%) or more of the voting stock of the resulting entity or a parent company thereof, in substantially the same proportions as their ownership of the Company immediately prior to the transaction; or (2) in which the holders of the Company's capital stock immediately before such transaction will, immediately after such transaction, hold as a group on a fully diluted basis the ability to elect at least a majority of the authorized directors of the surviving entity (or a parent company); or

(iii) there is consummated a sale, lease, license or disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries, other than a sale, lease, license or disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries to an entity, fifty percent (50%) or more of the combined voting power of the voting securities of which are owned by stockholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale, lease, license or disposition.

(c) "Disability" means a physical or mental disability, which prevents Executive from performing Executive's duties under this Agreement for a period of at least 120 consecutive days in any twelve month period or 150 non consecutive days in any twelve month period.

(d) "Good Reason" shall mean without Executive's express written consent any of the following: (i) a significant reduction of Executive's duties, position or responsibilities relative to Executive's duties, position or responsibilities in effect immediately prior to such reduction, or the removal of Executive from such position, duties or responsibilities; (ii) the relocation of Executive to a facility or a location more than twenty-five (25) miles from the Company's then current principal location or (iii) any action or inaction that constitutes a material breach by the Company or any successor to the Company of its obligations to Executive under this Agreement, including but not-limited to the commencement of a voluntary or involuntary bankruptcy proceeding. Provided, however, that before a termination for Good Reason pursuant to Section 1(d)(i) or (ii) is effective, Executive will provide the Company with written notice of the particular circumstances constituting the basis for his termination with Good Reason and thirty (30) calendar days to cure these particular circumstances (the "Company's Cure Period"). Failing such cure, Executive's termination of employment for Good Reason shall be effective on the day immediately following the expiration of the Company's Cure Period.

(e) "IPO" shall mean on or before June 30, 2018, a firm commitment underwritten public offering of shares of common stock (and any other securities of BTI that may be sold along with such shares of common stock in any such public offering).

2. Duties and Scope of Position. During the Employment Term (as defined below), Executive will serve as Chief Scientific Officer of the Company, reporting to the Chief Executive Officer, and assuming and discharging such responsibilities as are commensurate with Executive's position. During the Employment Term, Executive will provide services in a manner that will faithfully and diligently further the business of the Company and will devote all of Executive's business time, attention and energy thereto. Executive may not serve as a director on any entity's board of directors without prior written consent of the Company, which consent may be withheld by the Company in its sole and absolute discretion.

3. Employment Term. The term of Executive's employment under this Agreement shall commence as of the date above (the "Effective Date") and shall continue for a period of two (2) years, unless earlier terminated in accordance with Section 9 hereof. The term of Executive's employment shall be automatically renewed for successive one (1) year periods until Executive or the Company delivers to the other party a written notice of their intent not to renew the "Employment Term," such written notice to be delivered at least ninety (90) days prior to the expiration of the then-effective "Employment Term" as that term is defined below. The period commencing as of the Effective Date and ending two (2) years from the Effective Date or such later date to which the term of Executive's employment under this Agreement shall have been extended is referred to herein as the "Employment Term".

4. Base Compensation. Initially, the Company shall pay to Executive a base compensation (the "Base Compensation") of $180,000 per year (prorated for any partial year), payable in accordance with the Company's regular payroll practices and shall be subject to all applicable tax withholdings and deductions. The Base Compensation shall be increased to $280,000 per year (prorated for any partial year) after an IPO, less applicable tax withholdings and deductions. The Company shall review Executive's performance from time to time for purposes of, among other things, determining the appropriateness of increasing or decreasing his Base Compensation hereunder. For purposes of the Agreement, the term "Base Compensation" as of any point in time shall refer to the Base Compensation as adjusted pursuant to this Section 4.

5. Bonus.

(a) Target Bonus. If the Company completes an IPO, then Executive may be eligible to receive an annual bonus (the "Bonus") of up to 35% of Base Compensation. The actual amount of such Bonus, if any, will be determined by the Company in its sole and absolute discretion based upon, among other things, the Company's achievement of performance milestones for each fiscal year (in each case, the "Target Year") following the IPO. The performance milestones referenced in this Section 5 for each Target Year shall be mutually agreed upon by Executive and either the Company's Board of Directors or its compensation committee (the "Board"). Such performance milestones shall be established by the last day of the first month of the Target Year. If Executive and the Board are unable to mutually agree upon such performance milestones, then the Company shall determine the performance milestones in its sole and absolute discretion. The Bonus, if any, shall be paid by the end of the third month of the fiscal year immediately following the Target Year. Executive must be continuously employed by the Company through the end of the Target Year for which the Bonus is calculated in order to receive such payment. Except in the case of termination

by the Company without cause or by the Executive for Good Reason, Executive must be employed by the Company on the Bonus payment date in order to be eligible for any such payment. For purposes of clarity, upon a termination for Cause or Executive's termination without Good Reason, Executive will not be eligible to earn and receive any Bonus.

(b) IPO Bonus. Executive shall be entitled to a special bonus upon the completion of an IPO ("IPO Bonus"). The IPO Bonus shall be equal to $15,000. The IPO Bonus, if any, shall be paid on the first regularly scheduled payroll date immediately following the IPO. Executive must be continuously employed by the Company through the completion of the IPO for which the IPO Bonus is calculated in order to receive such payment. Except in the case of termination by the Company without cause or by the Executive for Good Reason, Executive must be employed by the Company on the IPO Bonus payment date in order to be eligible for any such payment. For purposes of clarity, upon a termination for Cause or Executive's termination without Good Reason, Executive will not be eligible to earn and receive any IPO Bonus.

6. Benefits; Vacation Days. (a) The Company will establish an employee healthcare and other benefit plans as soon as commercially practicable after the IPO. During the Employment Term, Executive shall be entitled to participate in all employee benefit plans and programs that the Company decides, in its sole and absolute discretion, to make available to the Company's senior level executives as a group or to its employees generally, as such plans or programs may be in effect from time to time.

(b) During the Employment Period, Employee shall be entitled to fifteen (15) vacation days per year, as well as holidays, sick days and personal days in accordance with the Company's policies, as such policies may be amended from time to time. Any unused vacation, holiday, sick or personal days earned in one calendar year may not be used in any subsequent calendar year. Upon the termination of the Executive's employment with the Company, no cash shall be paid in lieu of accrued but unused vacation, holiday, sick or personal days.

7. Termination.

(a) Termination by the Company. The Company may terminate Executive's employment immediately for Cause. Provided, however, that if the Company seeks to terminate Executive's employment for Cause as defined in Section 1(a)(iii) or (iv), then Executive's termination shall not be effective until the day immediately following the expiration of the Executive's Cure Period. Except as otherwise set forth in Section 9(c) below, the Company must provide Executive with thirty (30) days advance written notice of its decision to terminate Executive's employment without Cause.

(b) Termination by Executive. Executive may terminate his employment for Good Reason, provided that, such termination for Good Reason shall not be effective until the day immediately following the expiration of the Company's Cure Period. Executive must provide the Company with ninety (90) days advance written notice of his decision to terminate his employment without Good Reason. Following its receipt of Executive's advance written notice of Executive's decision to terminate his employment without Good Reason, the Company may, in its sole and absolute discretion, decide to render Executive's termination without Good Reason effective at any

time prior to the expiration of the ninety (90) day notice period set forth in this Section 9(b).

(c) Termination for Death or Disability. Executive's employment shall terminate automatically upon his death. The Company must provide Executive with ten (10) days advance written notice of its decision to terminate Executive's employment as a result of Executive's Disability.

8. Payments upon Termination.

(a) Termination by the Company for Cause, Death or Disability or by Executive Without Good Reason. In the event that Executive's employment hereunder is terminated: (i) by the Company for Cause; (ii) as a result of Executive's death or Disability; (iii) by Executive without Good Reason; or (iv) as a result of either the Company or Executive providing the other with notice of its intent not to renew the Employment Term pursuant to Section 3, then the Company shall pay to Executive (or in the case of death, Executive's estate) any portion of Executive's unpaid Base Compensation then due for periods prior to the effective date of Executive's termination. In addition, the Company shall reimburse Executive for all expenses reasonably and necessarily incurred by Executive in connection with the business of the Company prior to the effective date of termination, provided that Executive (or Executive's estate) submit proper expense reports to the Company no later than fourteen (14) days after the effective date of Executive's termination.

(b) Termination by the Company Without Cause or by Executive With Good Reason. In the event that Executive's employment hereunder is terminated by the Company without Cause or by Executive with Good Reason, then the Company shall provide Executive with the same payments and benefits set forth in Section 8(a). Further, provided Executive timely executes a general release of all claims against the Company in a form acceptable to the Company (a "Release'') and the Release becomes effective within 60 days following the date of Executive's termination, then Executive shall also receive: (i) a *pro rata* Bonus for the Target Year in which Executive's termination became effective, payable on the same date that bonuses are payable to other executives of the Company in the year following such Target Year; (ii) continued payment of Executive's Base Salary during the three (3) month period immediately following Executive's termination on the Company's regularly scheduled payroll dates or, after consummation of the IPO, continued payment of Executive's Base Salary during the six (6) month period immediately following Executive's termination on the Company's regularly scheduled payroll dates; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the first installment of the payments made under (ii) hereof shall not be paid until the second calendar year and shall include all amounts that would have been paid prior to such date if such delay had not applied.

(c) Termination Prior to a Change of Control. After consummation of the IPO, in the event that the Company terminates Executive's employment without Cause or Executive terminates his employment with Good Reason and a Change of Control is consummated no more than six (6) months following the effective date of Executive's termination, then, in addition to the payments and benefits set forth in Section 8(b), Executive shall also receive a lump sum payment equal to six (6) months of Executive's Base Salary. In order to receive the payment set forth in this Section 8(c): (i) the Change of Control must have been Pending on the effective date of Executive's

termination; and (ii) Executive must execute the Release. The payment shall be made on the first regularly scheduled payroll date following the later of (x) the Change of Control, and (y) the effective date of the Release; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the payment shall not be paid until the second calendar year.

(d) Termination Subsequent to a Change of Control. After consummation of the IPO, in the event that the Company terminates Executive's employment without Cause or Executive terminates his employment with Good Reason and a Change of Control is consummated no more than twelve (12) months prior to the effective date of Executive's termination, then, in addition to the payments and benefits set forth in Section 8(b), Executive shall also receive a lump sum payment equal to six (6) months of Executive's Base Salary. In order to receive the payment set forth in this Section 8(d), Executive must execute the Release. The payment shall be made on the first regularly scheduled payroll date following the effective date of the Release; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the payment shall not be paid until the second calendar year.

(e) Definition of "Pending." For purposes of Section 8(c), a Change of Control transaction shall be deemed to be "Pending" each time any of the following circumstances exist: (A) the Company and a third party have entered into a confidentiality agreement that has been signed by a duly-authorized officer of the Company and that is related to a potential Change of Control transaction; or (B) the Company has received a written expression of interest from a third party, including a binding or non-binding term sheet or letter of intent, related to a potential Change of Control transaction.

9. Directors & Officers Liability Insurance. The Company further agrees to maintain a directors and officers liability insurance policy covering Executive in an amount and on terms no less favorable to him than the coverage the Company provides other senior executives and directors.

10. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the heirs and representatives of Executive and the assigns and successors of the Company, but neither this Agreement nor any rights or obligations hereunder shall be assignable or otherwise subject to hypothecation by Executive (except by will or by operation of the laws of intestate succession or by Executive notifying the Company that cash payment be made to an affiliated investment partnership in which Executive is a control person) or by Company, except that Company may assign this Agreement to any successor (whether by merger, purchase or otherwise) to all or substantially all of the stock, assets or businesses of Company, and the Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company expressly to assume and agree to perform this Agreement to the same extent that the Company would be required to perform it if no succession had taken place.

11. Notices. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered (if to the Company, addressed to its Secretary at the Company's principal place of business on a non- holiday weekday between the hours of 9 a.m. and 5 p.m.; if to Executive, via personal service to his last

known residence) or three business days following the date it is mailed by U.S. registered or certified mail, return receipt requested and postage prepaid.

12. Confidential Information. Executive recognizes and acknowledges that by reason of Executive's employment by and service to the Company before, during and, if applicable, after the Employment Term, Executive will have access to certain confidential and proprietary information relating to the Company's business, which may include, but is not limited to, trade secrets, trade "know-how," product development techniques and plans, formulas, customer lists and addresses, financing services, funding programs, cost and pricing information, marketing and sales techniques, strategy and programs, computer programs and software and financial information (collectively referred to herein as "Confidential Information"). Executive acknowledges that such Confidential Information is a valuable and unique asset of the Company and Executive covenants that he will not, unless expressly authorized in writing by the Company, at any time during the course of Executive's employment use any Confidential Information or divulge or disclose any Confidential Information to any person, firm or corporation except in connection with the performance of Executive's duties for and on behalf of the Company and in a manner consistent with the Company's policies regarding Confidential Information. Executive also covenants that at any time after the termination of such employment, directly or indirectly, he will not use any Confidential Information or divulge or disclose any Confidential Information to any person, firm or corporation, unless such information is in the public domain through no fault of Executive or except when required to do so by a court of law, by any governmental agency having supervisory authority over the business of the Company or by any administrative or legislative body (including a committee thereof) with apparent jurisdiction to order Executive to divulge, disclose or make accessible such information. All written Confidential Information (including, without limitation, in any computer or other electronic format) which comes into Executive's possession during the course of Executive's employment shall remain the property of the Company. Unless expressly authorized in writing by the Company, Executive shall not remove any written Confidential Information from the Company's premises, except in connection with the performance of Executive's duties for and on behalf of the Company and in a manner consistent with the Company's policies regarding Confidential Information. Upon termination of Executive's employment, the Executive agrees to immediately return to the Company all written Confidential Information (including, without limitation, in any computer or other electronic format) in Executive's possession.

13. Non-Competition; Non-Solicitation.

(a) Non-Compete. Executive hereby covenants and agrees that during the Employment Term and for a period of one (1) year following the termination of Executive's employment, regardless of the reason for such termination, Executive will not, without the prior written consent of the Company, directly or indirectly, on his own behalf or in the service or on behalf of others, whether or not for compensation, engage in any business activity, or have any interest in any person, firm, corporation or business, through a subsidiary or parent entity or other entity (whether as a shareholder, agent, joint venturer, security holder, trustee, partner, Executive, creditor lending credit or money for the purpose of establishing or operating any such business, partner or otherwise) with any Competing Business in the Covered Area. For the purpose of this Section 13(a), "Competing Business" means any business competing with any products and/or services of the Company or its affiliates that exist or are in the process of being formed or acquired

as of the effective date of Executive's termination. For the purpose of this Section 13(a), "Covered Area" means all geographical areas of the United States and other foreign jurisdictions where the Company has offices and/or sells its products directly or indirectly through distributors and/or other sales agents. Notwithstanding the foregoing, Executive may own shares of companies whose securities are publicly traded, so long as ownership of such securities do not constitute more than one percent (1%) of the outstanding securities of any such company.

(b) Non-Solicitation. Executive further agrees that during the Employment Term and for a period of one (1) year following the termination of Executive's employment, regardless of the reason for such termination, Executive will not divert any business of the Company and/or its affiliates or any customers or suppliers of the Company and/or the Company's and/or its affiliates' business to any other person, entity or competitor, or induce or attempt to induce, directly or indirectly, any person to leave his or her employment with the Company and/or its affiliates; provided, however, that the foregoing provisions shall not apply to a general advertisement or solicitation program that is not specifically targeted at such employees.

(c) Executive acknowledges and agrees that his obligations provided herein are necessary and reasonable in order to protect the Company and its affiliates and their respective business and the Executive expressly agrees that monetary damages would be inadequate to compensate the Company and/or its affiliates for any breach by the Executive of his covenants and agreements set forth herein. Accordingly, Executive agrees and acknowledges that any such violation or threatened violation of Section 12 or 13 will cause irreparable injury to the Company and that, in addition to any other remedies that may be available, in law, in equity or otherwise, the Company and its affiliates shall be entitled to obtain injunctive relief against the threatened breach or the continuation of any such breach by the Executive of Section 12 or 13 without the necessity of proving actual damages. If, at the time of enforcement of Sections 12 or 13, a court shall hold that the duration, scope or area restrictions stated therein are unreasonable under circumstances then existing, the parties agree that the maximum duration, scope or area reasonable under such circumstances shall be substituted for the stated duration, scope or area and that the court shall be allowed to revise the restrictions contained therein to cover the maximum period, scope and area permitted by law.

14. Stock Option Grant. Executive shall be granted options to purchase 154 shares of the Company at the completion of the IPO, subject to adjustment for stock splits, subdivisions, combinations or reclassifications after the Effective Date (the "IPO Options"). In each case, such options will have an exercise price equal to fair market value per share on the date of grant and will vest (a) twenty-five percent (25%) on the first anniversary of the grant ; (b) seventy-five percent (75%) in equal monthly installments over the next thirty-six months following the first anniversary of the effective date, subject to continued employment on each vesting date. The option agreement or the option plan under which the options are issued will include (i) a termination provision whereby in the event Executive's employment is terminated for Cause by the Company, the stock options, vested and unvested, will be immediately forfeited and (ii) if such employment is terminated for any other reason (except death or Disability), the unvested options will be immediately forfeited and the vested options may be exercised at any time until the earlier of (x) three (3) months after such termination of Executive's employment and (y) the original expiration date of the options. If Executive's employment is terminated by death or Disability, the unvested options will be immediately forfeited and the vested options may be exercised at any time until the earlier of (x) one

(1) year after such termination of Executive's employment and (y) the original expiration date of the options.

15. Miscellaneous Provisions.

(a) Modifications; No Waiver. No provision of this Agreement may be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by Executive and by an authorized officer of the Company (other than Executive). No waiver by either

party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(b) Entire Agreement. This Agreement supersedes all prior agreements and understandings between the parties, oral or written. No modification, termination or attempted waiver shall be valid unless in writing, signed by the party against whom such modification, termination or waiver is sought to be enforced.

(c) Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the internal substantive laws, but not the conflicts of law rules, of the State of Connecticut.

(d) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, and may be delivered by facsimile or other electronic means, but all of which shall be deemed originals and taken together will constitute one and the same Agreement.

(f) Headings. The headings of the Sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

(g) Construction of Agreement. In the event of a conflict between the text of the Agreement and any summary, description or other information regarding the Agreement, the text of the Agreement shall control.

(h) Withholding. The Company shall be entitled to withhold from any amounts to be paid or benefits provided to Executive hereunder any federal, state, local or foreign withholding, FICA and FUTA contributions. or other taxes. charges or deductions which it is from time to time required to withhold.

(i) Section 409A.

(i) The parties agree that this Agreement shall be interpreted to comply with or be exempt from Section 409A of the Code and the regulations and guidance

promulgated thereunder (collectively "Section 409A"), and all provisions of this Agreement shall be construed in a manner consistent with the requirements for avoiding taxes or penalties under Section 409A. In no event whatsoever will the Company be liable for any additional tax, interest or penalties that may be imposed on Executive under Section 409A or any damages for failing to comply with Section 409A.

(ii) A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits considered "nonqualified deferred compensation" under Section 409A upon or following a termination of employment unless and until such termination is also a "separation from service" within the meaning of Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." If Executive is deemed on the date of termination to be a ''specified employee" within the meaning of that term under Section 409A(a)(2)(B), then with regard to any payment or the provision of any benefit that is considered nonqualified deferred compensation under Section 409A payable on account of a "separation from service," such payment or benefit shall be made or provided at the date which is the earlier of (i) the expiration of the six (6)-month period measured from the date of such "separation from service" of Executive, and (ii) the date of Executive's death (the "Delay Period"). Upon the expiration of the Delay Period, all payments and benefits delayed pursuant to this Section 16(i)(ii) (whether they would have otherwise been payable in a single sum or in installments in the absence of such delay) shall be paid or reimbursed on the first business day following the expiration of the Delay Period to Executive in a lump sum and any remaining payments and benefits due under this Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein.

(iii) With regard to any provision here.in that provides for reimbursement of costs and expenses or in-kind benefits. except as permitted by Section 409A, (x) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (y) the amount of expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement. or in-kind benefits, to be provided in any other taxable year, provided, that, this clause (y) shall not be violated with regard to expenses reimbursed under any arrangement covered by Code Section 105(b) solely because such expenses are subject to a limit related to the period the arrangement is in effect and (z) such payments shall be made on or before the last day of Executive's taxable year following the taxable year in which the expense occurred.

(iv) For purposes of Section 409A, Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Whenever a payment under this Agreement specifies a payment period with reference to a number of days (e.g., "payment shall be made within thirty (30) days following the date of termination"), the actual date of payment within the specified period shall be within the sole discretion of the Company.

[signature page follows]

IN WITNESS WHEREOF. the undersigned, intending to be legally bound, have executed this Agreement as of the date first written above.

BIOXCEL THERAPEUTICS, INC.

By: /s/ Vimal Mehta
Name: Vimal Mehta
Title: CEO

FRANK YOCCA, Ph.D.

/s/ Frank Yocca

Exhibit 10.12

EXECUTIVE EMPLOYMENT AGREEMENT

This Executive Agreement (the "Agreement") is made and entered into effective as of October 2, 2017 (the "Effective Date"), by and between Richard Steinhart (the "Executive") and BioXcel Therapeutics, Inc., a Delaware corporation (the "Company").

RECITALS

WHEREAS, the Company wishes to retain Executive as its Chief Financial Officer;

WHEREAS, the Company wishes to secure the services of Executive upon the terms and conditions hereinafter set forth, and Executive wishes to render such services to the Company upon the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto, intending to be legally bound, agree as follows:

AGREEMENT

1. Definition of Terms. The following terms referred to in this Agreement shall have the following meanings:

(a) "Cause" shall mean any of the following: (i) a material breach or material default (including, without limitation, any material dereliction of duty) by Executive of this Agreement or any agreement between Executive and the Company, or a repeated failure by Executive to follow the direction of the Company; (ii) Executive's gross negligence, willful misfeasance or breach of fiduciary duty to the Company or its affiliates; (iii) the commission by Executive of an act or omission involving fraud, embezzlement, misappropriation or dishonesty in connection with Executive's duties to the Company or its affiliates or that is otherwise likely to be materially injurious to the business or reputation of the Company or its affiliates; or (iv) Executive's conviction of, indictment for, or pleading guilty or *nolo contendere* to, any felony or other crime involving fraud or moral turpitude. For purposes of this subsection, no act or failure to act on Executive's part shall be considered "willful" unless done, or omitted to be done, by Executive not in good faith and without reasonable belief that his action or omission was in the best interest of the Company. Any determination of whether Cause exists shall be made by the Company in its sole and absolute discretion. Provided, however, that before a termination for Cause pursuant to Section 1(a)(iii) or (iv) is effective, Executive will be given written notice of the particular circumstances constituting the basis for the termination for Cause and thirty (30) calendar days to cure those particular circumstances (the "Executive's Cure Period"). Any determination as to whether Executive successfully cured the circumstances at issue shall be made by the Company in its sole and absolute discretion. Failing such cure, Executive's termination for Cause pursuant to Section 1(a)(iii) or (iv) shall be effective on the day immediately following the expiration of Executive's Cure Period.

(b) "Change of Control" shall mean the occurrence of any of the following events:

(i) the date on which any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) obtains "beneficial ownership" (as defined in Rule 13d-3 of the Exchange Act) or a pecuniary interest in fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities ("Voting Stock");

(ii) the consummation of a merger, consolidation, reorganization, or similar transaction involving the Company, other than a transaction: (1) in which substantially all of the holders of the Voting Stock immediately prior to such transaction hold or receive directly or indirectly fifty percent (50%) or more of the voting stock of the resulting entity or a parent company thereof, in substantially the same proportions as their ownership of the Company immediately prior to the transaction; or (2) in which the holders of the Company's capital stock immediately before such transaction will, immediately after such transaction, hold as a group on a fully diluted basis the ability to elect at least a majority of the authorized directors of the surviving entity (or a parent company); or

(iii) there is consummated a sale, lease, license or disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries, other than a sale, lease, license or disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries to an entity, fifty percent (50%) or more of the combined voting power of the voting securities of which are owned by stockholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale, lease, license or disposition.

(c) "Disability" means a physical or mental disability, which prevents Executive from performing Executive's duties under this Agreement for a period of at least 120 consecutive days in any twelve month period or 150 non consecutive days in any twelve month period.

(d) "Good Reason" shall mean without Executive's express written consent any of the following: (i) a significant reduction of Executive's duties, position or responsibilities relative to Executive's duties, position or responsibilities in effect immediately prior to such reduction, or the removal of Executive from such position, duties or responsibilities; or (ii) any action or inaction that constitutes a material breach by the Company or any successor to the Company of its obligations to Executive under this Agreement, including but not-limited to the commencement of a voluntary or involuntary bankruptcy proceeding. Provided, however, that before a termination for Good Reason pursuant to Section 1(d)(i) or (ii) is effective, Executive will provide the Company with written notice of the particular circumstances constituting the basis for his termination with Good Reason and thirty (30) calendar days to cure these particular circumstances (the "Company's Cure Period"). Failing such cure, Executive's termination of employment for Good Reason shall be effective on the day immediately following the expiration of the Company's Cure Period.

(e) "IPO" shall mean on or before June 30, 2018, a firm commitment underwritten public offering of shares of common stock (and any other securities of BTI that may be sold along with such shares of common stock in any such public offering).

2. Duties and Scope of Position. During the Employment Term (as defined below),

Executive will serve as Chief Financial Officer of the Company, reporting to the Chief Executive Officer, and assuming and discharging such responsibilities as are commensurate with Executive's position. During the Employment Term, Executive will provide services in a manner that will faithfully and diligently further the business of the Company and will devote all of Executive's business time, attention and energy thereto. Except for his current directorships on the board of directors of each of Atossa Genetics, Inc. and Actinium Pharmaceuticals, Inc., Executive may not serve as a director on any entity's board of directors without prior written consent of the Company, which consent may be withheld by the Company in its sole and absolute discretion.

3. Employment Term. The term of Executive's employment under this Agreement shall commence as of the date above (the "Effective Date") and shall continue for a period of two (2) years, unless earlier terminated in accordance with Section 9 hereof. The term of Executive's employment shall be automatically renewed for successive one (1) year periods until Executive or the Company delivers to the other party a written notice of their intent not to renew the "Employment Term," such written notice to be delivered at least ninety (90) days prior to the expiration of the then-effective "Employment Term" as that term is defined below. The period commencing as of the Effective Date and ending two (2) years from the Effective Date or such later date to which the term of Executive's employment under this Agreement shall have been extended is referred to herein as the "Employment Term".

4. Base Compensation. Initially, the Company shall pay to Executive a base compensation (the "Base Compensation") of $10,000 per month (prorated for any partial month), payable in accordance with the Company's regular payroll practices and shall be subject to all applicable tax withholdings and deductions. The Base Compensation shall be increased to $280,000 per year (prorated for any partial year) after an IPO, less applicable tax withholdings and deductions. The Company shall review Executive's performance from time to time for purposes of, among other things, determining the appropriateness of increasing or decreasing his Base Compensation hereunder. For purposes of the Agreement, the term "Base Compensation" as of any point in time shall refer to the Base Compensation as adjusted pursuant to this Section 4.

5. Target Bonus. If the Company completes an IPO, then Executive may be eligible to receive an annual bonus (the "Bonus") of up to 40% of Base Compensation. The actual amount of such Bonus, if any, will be determined by the Company in its sole and absolute discretion based upon, among other things, the Company's achievement of performance milestones for each fiscal year (in each case, the "Target Year") following the IPO. The performance milestones referenced in this Section 5 for each Target Year shall be mutually agreed upon by Executive and either the Company's Board of Directors or its compensation committee (the "Board"). Such performance milestones shall be established by the last day of the first month of the Target Year. If Executive and the Board are unable to mutually agree upon such performance milestones, then the Company shall determine the performance milestones in its sole and absolute discretion. The Bonus, if any, shall be paid by the end of the third month of the fiscal year immediately following the Target Year. Executive must be continuously employed by the Company through the end of the Target Year for which the Bonus is calculated in order to receive such payment. Except in the case of termination by the Company without cause or by the Executive for Good Reason, Executive must be employed by the Company on the Bonus payment date in order to be eligible for any such payment. For purposes of clarity, upon a termination for Cause or Executive's termination without Good Reason, Executive

will not be eligible to earn and receive any Bonus.

6. IPO Bonus. Executive shall be entitled to a special bonus upon the completion of an IPO ("IPO Bonus"). The IPO Bonus shall be equal to $60,000. The IPO Bonus, if any, shall be paid on the first regularly scheduled payroll date immediately following the IPO. Executive must be continuously employed by the Company through the completion of the IPO for which the IPO Bonus is calculated in order to receive such payment. Except in the case of termination by the Company without cause or by the Executive for Good Reason, Executive must be employed by the Company on the IPO Bonus payment date in order to be eligible for any such payment. For purposes of clarity, upon a termination for Cause or Executive's termination without Good Reason, Executive will not be eligible to earn and receive any IPO Bonus.

7. Stock Option Grant. Executive shall be granted options to purchase 136 shares of the Company at the completion of the IPO, subject to adjustment for stock splits, subdivisions, combinations or reclassifications after the Effective Date (the "IPO Options"). In each case, such options will have an exercise price equal to fair market value per share on the date of grant and will vest (a) twenty-five percent (25%) on the first anniversary of the grant ; (b) seventy-five percent (75%) in equal monthly installments over the next thirty-six months following the first anniversary of the effective date, subject to continued employment on each vesting date. The option agreement or the option plan under which the options are issued will include (i) a termination provision whereby in the event Executive's employment is terminated for Cause by the Company, the stock options, vested and unvested, will be immediately forfeited and (ii) if such employment is terminated for any other reason (except death or Disability), the unvested options will be immediately forfeited and the vested options may be exercised at any time until the earlier of (x) three (3) months after such termination of Executive's employment and (y) the original expiration date of the options. If Executive's employment is terminated by death or Disability, the unvested options will be immediately forfeited and the vested options may be exercised at any time until the earlier of (x) one (1) year after such termination of Executive's employment and (y) the original expiration date of the options.

8. Benefits; Vacation Days. (a) The Company will establish an employee healthcare and other benefit plans as soon as commercially practicable after the IPO. The Company shall reimburse Executive for his COBRA payments beginning on the Effective Date through the date the Company has established its own employee healthcare plan. During the Employment Term, Executive shall be entitled to participate in all employee benefit plans and programs that the Company decides, in its sole and absolute discretion, to make available to the Company's senior level executives as a group or to its employees generally, as such plans or programs may be in effect from time to time.

(b) During the Employment Period, Employee shall be entitled to fifteen (15) vacation days per year, as well as holidays, sick days and personal days in accordance with the Company's policies, as such policies may be amended from time to time. Any unused vacation, holiday, sick or personal days earned in one calendar year may not be used in any subsequent calendar year. Upon the termination of the Executive's employment with the Company, no cash shall be paid in lieu of accrued but unused vacation, holiday, sick or personal days.

9. Termination.

(a) Termination by the Company. The Company may terminate Executive's employment immediately for Cause. Provided, however, that if the Company seeks to terminate Executive's employment for Cause as defined in Section 1(a)(iii) or (iv), then Executive's termination shall not be effective until the day immediately following the expiration of the Executive's Cure Period. Except as otherwise set forth in Section 9(c) below, the Company must provide Executive with thirty (30) days advance written notice of its decision to terminate Executive's employment without Cause.

(b) Termination by Executive. Executive may terminate his employment for Good Reason, provided that, such termination for Good Reason shall not be effective until the day immediately following the expiration of the Company's Cure Period. Executive must provide the Company with ninety (90) days advance written notice of his decision to terminate his employment without Good Reason. Following its receipt of Executive's advance written notice of Executive's decision to terminate his employment without Good Reason, the Company may, in its sole and absolute discretion, decide to render Executive's termination without Good Reason effective at any time prior to the expiration of the ninety (90) day notice period set forth in this Section 9(b).

(c) Termination for Death or Disability. Executive's employment shall terminate automatically upon his death. The Company must provide Executive with ten (10) days advance written notice of its decision to terminate Executive's employment as a result of Executive's Disability.

10. Payments upon Termination.

(a) Termination by the Company for Cause, Death or Disability or by Executive Without Good Reason. In the event that Executive's employment hereunder is terminated: (i) by the Company for Cause; (ii) as a result of Executive's death or Disability; (iii) by Executive without Good Reason; or (iv) as a result of either the Company or Executive providing the other with notice of its intent not to renew the Employment Term pursuant to Section 3, then the Company shall pay to Executive (or in the case of death, Executive's estate) any portion of Executive's unpaid Base Compensation then due for periods prior to the effective date of Executive's termination. In addition, the Company shall reimburse Executive for all expenses reasonably and necessarily incurred by Executive in connection with the business of the Company prior to the effective date of termination, provided that Executive (or Executive's estate) submit proper expense reports to the Company no later than fourteen (14) days after the effective date of Executive's termination.

(b) Termination by the Company Without Cause or by Executive With Good Reason. In the event that Executive's employment hereunder is terminated by the Company without Cause or by Executive with Good Reason, then the Company shall provide Executive with the same payments and benefits set forth in Section 10(a). Further, provided Executive timely executes a general release of all claims against the Company in a form acceptable to the Company (a "Release") and the Release becomes effective within 60 days following the date of Executive's termination, then Executive shall also receive: (i) a *pro rata* Bonus for the Target Year in which Executive's termination became effective, payable on the same date that bonuses are payable to other executives

of the Company in the year following such Target Year; (ii) continued payment of Executive's Base Salary during the three (3) month period immediately following Executive's termination on the Company's regularly scheduled payroll dates or, after consummation of the IPO, continued payment of Executive's Base Salary during the six (6) month period immediately following Executive's termination on the Company's regularly scheduled payroll dates; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the first installment of the payments made under (ii) hereof shall not be paid until the second calendar year and shall include all amounts that would have been paid prior to such date if such delay had not applied.

(c) Termination Prior to a Change of Control. After consummation of the IPO, in the event that the Company terminates Executive's employment without Cause or Executive terminates his employment with Good Reason and a Change of Control is consummated no more than six (6) months following the effective date of Executive's termination, then, in addition to the payments and benefits set forth in Section 10(b), Executive shall also receive a lump sum payment equal to six (6) months of Executive's Base Salary. In order to receive the payment set forth in this Section 10(c): (i) the Change of Control must have been Pending on the effective date of Executive's termination; and (ii) Executive must execute the Release. The payment shall be made on the first regularly scheduled payroll date following the later of (x) the Change of Control, and (y) the effective date of the Release; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the payment shall not be paid until the second calendar year.

(d) Termination Subsequent to a Change of Control. After consummation of the IPO, in the event that the Company terminates Executive's employment without Cause or Executive terminates his employment with Good Reason and a Change of Control is consummated no more than twelve (12) months prior to the effective date of Executive's termination, then, in addition to the payments and benefits set forth in Section 10(b), Executive shall also receive a lump sum payment equal to six (6) months of Executive's Base Salary. In order to receive the payment set forth in this Section 10(d), Executive must execute the Release. The payment shall be made on the first regularly scheduled payroll date following the effective date of the Release; provided, however, that if the 60 day period for the Release to become effective begins in one calendar year and ends in a second calendar year, the payment shall not be paid until the second calendar year.

(e) Definition of "Pending." For purposes of Section 10(c), a Change of Control transaction shall be deemed to be "Pending" each time any of the following circumstances exist: (A) the Company and a third party have entered into a confidentiality agreement that has been signed by a duly-authorized officer of the Company and that is related to a potential Change of Control transaction; or (B) the Company has received a written expression of interest from a third party, including a binding or non-binding term sheet or letter of intent, related to a potential Change of Control transaction.

11. Directors & Officers Liability Insurance. The Company further agrees to maintain a directors and officers liability insurance policy covering Executive in an amount and on terms no less favorable to him than the coverage the Company provides other senior executives and directors.

12. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the heirs and representatives of Executive and the assigns and successors of the Company, but neither this Agreement nor any rights or obligations hereunder shall be assignable or otherwise subject to hypothecation by Executive (except by will or by operation of the laws of intestate succession or by Executive notifying the Company that cash payment be made to an affiliated investment partnership in which Executive is a control person) or by Company, except that Company may assign this Agreement to any

successor (whether by merger, purchase or otherwise) to all or substantially all of the stock, assets or businesses of Company, and the Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company expressly to assume and agree to perform this Agreement to the same extent that the Company would be required to perform it if no succession had taken place.

13. Notices. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered (if to the Company, addressed to its Secretary at the Company's principal place of business on a non- holiday weekday between the hours of 9 a.m. and 5 p.m.; if to Executive, via personal service to his last known residence) or three business days following the date it is mailed by U.S. registered or certified mail, return receipt requested and postage prepaid.

14. Confidential Information. Executive recognizes and acknowledges that by reason of Executive's employment by and service to the Company before, during and, if applicable, after the Employment Term, Executive will have access to certain confidential and proprietary information relating to the Company's business, which may include, but is not limited to, trade secrets, trade "know-how," product development techniques and plans, formulas, customer lists and addresses, financing services, funding programs, cost and pricing information, marketing and sales techniques, strategy and programs, computer programs and software and financial information (collectively referred to herein as "Confidential Information"). Executive acknowledges that such Confidential Information is a valuable and unique asset of the Company and Executive covenants that he will not, unless expressly authorized in writing by the Company, at any time during the course of Executive's employment use any Confidential Information or divulge or disclose any Confidential Information to any person, firm or corporation except in connection with the performance of Executive's duties for and on behalf of the Company and in a manner consistent with the Company's policies regarding Confidential Information. Executive also covenants that at any time after the termination of such employment, directly or indirectly, he will not use any Confidential Information or divulge or disclose any Confidential Information to any person, firm or corporation, unless such information is in the public domain through no fault of Executive or except when required to do so by a court of law, by any governmental agency having supervisory authority over the business of the Company or by any administrative or legislative body (including a committee thereof) with apparent jurisdiction to order Executive to divulge, disclose or make accessible such information. All written Confidential Information (including, without limitation, in any computer or other electronic format) which comes into Executive's possession during the course of Executive's employment shall remain the property of the Company. Unless expressly authorized in writing by the Company, Executive shall not remove any written Confidential Information from the Company's premises, except in connection with the performance of Executive's duties for and on behalf of the Company and in a manner consistent with the Company's policies regarding Confidential Information. Upon

termination of Executive's employment, the Executive agrees to immediately return to the Company all written Confidential Information (including, without limitation, in any computer or other electronic format) in Executive's possession.

15. Non-Competition; Non-Solicitation.

(a) Non-Compete. Executive hereby covenants and agrees that during the Employment Term and for a period of one (1) year following the termination of Executive's employment, regardless of the reason for such termination, Executive will not, without the prior written consent of the Company, directly or indirectly, on his own behalf or in the service or on behalf of others, whether or not for compensation, engage in any business activity, or have any interest in any person, firm, corporation or business, through a subsidiary or parent entity or other entity (whether as a shareholder, agent, joint venturer, security holder, trustee, partner, Executive, creditor lending credit or money for the purpose of establishing or operating any such business, partner or otherwise) with any Competing Business in the Covered Area. For the purpose of this Section 15(a), "Competing Business" means any business competing with any products and/or services of the Company or its affiliates that exist or are in the process of being formed or acquired as of the effective date of Executive's termination. For the purpose of this Section 15(a), "Covered Area" means all geographical areas of the United States and other foreign jurisdictions where the Company has offices and/or sells its products directly or indirectly through distributors and/or other sales agents. Notwithstanding the foregoing, Executive may own shares of companies whose securities are publicly traded, so long as ownership of such securities do not constitute more than one percent (1%) of the outstanding securities of any such company.

(b) Non-Solicitation. Executive further agrees that during the Employment Term and for a period of one (1) year following the termination of Executive's employment, regardless of the reason for such termination, Executive will not divert any business of the Company and/or its affiliates or any customers or suppliers of the Company and/or the Company's and/or its affiliates' business to any other person, entity or competitor, or induce or attempt to induce, directly or indirectly, any person to leave his or her employment with the Company and/or its affiliates; provided, however, that the foregoing provisions shall not apply to a general advertisement or solicitation program that is not specifically targeted at such employees.

(c) Executive acknowledges and agrees that his obligations provided herein are necessary and reasonable in order to protect the Company and its affiliates and their respective business and the Executive expressly agrees that monetary damages would be inadequate to compensate the Company and/or its affiliates for any breach by the Executive of his covenants and agreements set forth herein. Accordingly, Executive agrees and acknowledges that any such violation or threatened violation of Section 14 or 15 will cause irreparable injury to the Company and that, in addition to any other remedies that may be available, in law, in equity or otherwise, the Company and its affiliates shall be entitled to obtain injunctive relief against the threatened breach or the continuation of any such breach by the Executive of Section 14 or 15 without the necessity of proving actual damages. If, at the time of enforcement of Sections 14 or 15, a court shall hold that the duration, scope or area restrictions stated therein are unreasonable under circumstances then existing, the parties agree that the maximum duration, scope or area reasonable under such circumstances shall be substituted for the stated duration, scope or area and that the court shall be allowed to revise the

restrictions contained therein to cover the maximum period, scope and area permitted by law.

16. Miscellaneous Provisions.

(a) Modifications; No Waiver. No provision of this Agreement may be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by Executive and by an authorized officer of the Company (other than Executive). No waiver by either party of

any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(b) Entire Agreement. This Agreement supersedes all prior agreements and understandings between the parties, oral or written. No modification, termination or attempted waiver shall be valid unless in writing, signed by the party against whom such modification, termination or waiver is sought to be enforced.

(c) Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the internal substantive laws, but not the conflicts of law rules, of the State of Connecticut.

(d) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, and may be delivered by facsimile or other electronic means, but all of which shall be deemed originals and taken together will constitute one and the same Agreement.

(f) Headings. The headings of the Sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

(g) Construction of Agreement. In the event of a conflict between the text of the Agreement and any summary, description or other information regarding the Agreement, the text of the Agreement shall control.

(h) Withholding. The Company shall be entitled to withhold from any amounts to be paid or benefits provided to Executive hereunder any federal, state, local or foreign withholding, FICA and FUTA contributions. or other taxes. charges or deductions which it is from time to time required to withhold.

(i) Section 409A.

(i) The parties agree that this Agreement shall be interpreted to comply with or be exempt from Section 409A of the Code and the regulations and guidance promulgated thereunder (collectively "Section 409A"), and all provisions of this Agreement shall be

construed in a manner consistent with the requirements for avoiding taxes or penalties under Section 409A. In no event whatsoever will the Company be liable for any additional tax, interest or penalties that may be imposed on Executive under Section 409A or any damages for failing to comply with Section 409A.

(ii) A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits considered "nonqualified deferred compensation" under Section 409A upon or following a termination of employment unless and until such termination is also a "separation from service" within the meaning of Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." If Executive is deemed on the date of termination to be a ''specified employee" within the meaning of that term under Section 409A(a)(2)(B), then with regard to any payment or the provision of any benefit that is considered nonqualified deferred compensation under Section 409A payable on account of a "separation from service," such payment or benefit shall be made or provided at the date which is the earlier of (i) the expiration of the six (6)-month period measured from the date of such "separation from service" of Executive, and (ii) the date of Executive's death (the "Delay Period"). Upon the expiration of the Delay Period, all payments and benefits delayed pursuant to this Section 16(i)(ii) (whether they would have otherwise been payable in a single sum or in installments in the absence of such delay) shall be paid or reimbursed on the first business day following the expiration of the Delay Period to Executive in a lump sum and any remaining payments and benefits due under this Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein.

(iii) With regard to any provision here.in that provides for reimbursement of costs and expenses or in-kind benefits. except as permitted by Section 409A, (x) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (y) the amount of expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement. or in-kind benefits, to be provided in any other taxable year, provided, that, this clause (y) shall not be violated with regard to expenses reimbursed under any arrangement covered by Code Section 105(b) solely because such expenses are subject to a limit related to the period the arrangement is in effect and (z) such payments shall be made on or before the last day of Executive's taxable year following the taxable year in which the expense occurred.

(iv) For purposes of Section 409A, Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Whenever a payment under this Agreement specifies a payment period with reference to a number of days (e.g., "payment shall be made within thirty (30) days following the date of termination"), the actual date of payment within the specified period shall be within the sole discretion of the Company.

[signature page follows]

IN WITNESS WHEREOF. the undersigned, intending to be legally bound, have executed this Agreement as of the 12th day of February 2018.

BIOXCEL THERAPEUTICS, INC.

By: /s/ Vimal Mehta
Vimal Mehta, CEO

RICHARD STEINHART

/s/ Richard Steinhart

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Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors and Shareholder
of BioXcel Corporation

We hereby consent to the use in the Prospectus constituting a part of this Registration Statement on Form S-1 (Registration Statement No. 333-) of our report dated February 12, 2018, relating to the financial statements of BioXcel Therapeutics, Inc. as of December 31, 2017 and 2016 and for each of the years then ended, which is contained in that Prospectus. The balance sheet of BioXcel Therapeutics, Inc. as of December 31, 2016, and the related statements of operations, changes in net Parent investment, and cash flows for the period January 1, 2017 through June 30, 2017 are the carved-out operations of certain assets and liabilities of BioXcel Corporation. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ BDO USA, LLP

Woodbridge, New Jersey
February 12, 2018

QuickLinks