Filed Pursuant to Rule 433 of the Securities Act of 1933 Issuer Free Writing Prospectus dated March 5, 2018 Relating to Preliminary Prospectus dated February 27, 2018 Registration No. 333-222990

5,000,000 Shares



#### **Common Stock**

This free writing prospectus relates to the initial public offering of shares of common stock of BioXcel Therapeutics, Inc. (the "Company"). On March 5, 2018, the Company filed Amendment No. 3 (the "Amendment") to its Registration Statement on Form S-1 (Registration No. 333- 222990) to update and supplement certain disclosures that had been provided in the preliminary prospectus dated February 27, 2018 (the "Preliminary Prospectus"). The updated disclosures that appear in the Amendment primarily reflect an amendment to the Company's 2017 Equity Incentive Plan, approval of listing of the Company's common stock on The Nasdaq Capital Market, subject to notice of issuance and an amendment to the Principal Shareholders table. The Amendment may be accessed through the following link:

# https://www.sec.gov/Archives/edgar/data/1720893/000104746918001269/0001047469-18-001269-index.htm

The following information is set forth in the Amendment and supplements and updates the information contained in the Preliminary Prospectus. This free writing prospectus should be read together with the Preliminary Prospectus carefully, especially the "Risk Factors" section and the financial statements and related notes, before deciding to invest in these securities. Unless the context otherwise requires, the terms "we," "us" and "our" in this free writing prospectus to refer to BioXcel Therapeutics, Inc.

### **Update to "Cover Page"**

The first sentence of the second paragraph on the cover page of the Preliminary Prospectus has been revised to read as follows:

"We have been approved, subject to notice of issuance, to list our common stock on the Nasdaq Capital Market under the symbol "BTAI."

# **Update to "Prospectus Summary"**

The third bullet of the sentence "The number of shares of our common stock to be outstanding after this offering is based on 9,907,548 shares of our common stock outstanding as of December 31, 2017, and excludes:" on page 10 of the Preliminary Prospectus has been revised to read as follows:

"1,158,693 shares of common stock reserved for future issuance under our 2017 Equity Incentive Plan."

# **Update to "Risk Factors"**

The risk factor under the heading "Risk Factors—There is no guarantee that our common stock will be listed on Nasdaq," on page 55 of the Preliminary Prospectus has been revised to read as follows:

# "There is no assurance that an active and liquid trading market in our common stock will develop.

We have been approved, subject to notice of issuance, to list our shares of common stock on The Nasdaq Capital Market. 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."

# **Update to "Selected Financial Data"**

An additional line entitled "Additional paid-in capital" was added after "Total liabilities" under the heading "Selected Financial Data — Balance Sheet Data" on page 67 of the Preliminary Prospectus. As a result, additional paid-in capital for the year ended December 31, 2017 and 2016 is \$3,468 and \$0, respectively, as set forth on page 67.

# <u>Update to "Non-Employee Director Compensation Policy"</u>

The last sentence in the second paragraph under the heading "Non-Employee Director Compensation Policy" on page 147 of the Preliminary Prospectus has been revised to read as follows:

"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 10,000 shares of our common stock, which shall vest in three equal installments beginning on the first anniversary of such meeting."

#### **Update to "Employment Arrangements"**

The next to last sentence in the paragraph under the heading "Employment Agreements with BTI - Dr. Mehta Employment Agreement" on page 149 of the Preliminary Prospectus has been revised to read as follows:

"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 24 months of his base compensation."

#### **Update to "2017 Equity Incentive Plan"**

The following sentence has been added after the first sentence in the first paragraph under the heading "2017 Equity Incentive Plan" on page 151 of the Preliminary Prospectus to read as follows:

"On March 4, 2018, our board and shareholders agreed to amend the Plan to add an additional 500,070 shares of common stock that may be issued pursuant to awards granted under the Plan."

The first sentence in the first paragraph under the heading "2017 Equity Incentive Plan-Number of Shares Authorized" on page 152 of the Preliminary Prospectus has been revised to read as follows:

"Up to 3,462,570 shares of common stock may be issued pursuant to awards granted under the Plan."

The first sentence in the last paragraph under the heading "2017 Equity Incentive Plan-2017 Option Grants" on page 155 of the Preliminary Prospectus has been revised to read as follows:

"We have also agreed to issue our advisor Dr. Gujrathi options to purchase 37,209 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."

### **Update to "Principal Shareholders" Table**

The number of shares beneficially owned by Krishnan Nandabalan ("KN") has been updated to reflect his beneficial ownership of the shares of common stock held by BioXcel Corporation ("Parent"). As a result the principal shareholders table on page 160 now reflects his beneficial ownership of 9,480,000 shares of common stock of Parent, which represents 95.7% and 63.6% of the common stock, before and after the offering, respectively.

The number of shares beneficially owned by all current executive officers and directors has been updated to reflect the beneficial ownership of the shares of common stock held by KN. As a result the principal shareholders table on page 160 now reflects the beneficial ownership of all executive officers and directors as a group of 9,636,663 shares of common stock.

The following footnote (3) has been added after the bottom of the table under the heading "Principal Shareholders" on page 160 of the Preliminary Prospectus to read as follows:

"(3) Dr. Nandabalan owns approximately 43% of the voting stock of BioXcel and may be deemed the beneficial owner of the shares held by BioXcel."

# **Update to "Description of Capital Stock"**

The following paragraph under the heading "Description of Capital Stock — Stock Market Listing" on page 163 of the Preliminary Prospectus to read as follows:

"We have been approved, subject to notice of issuance, to list our common stock on the Nasdaq Capital Market under the symbol "BTAI."

# **Update to "Shares Eligible for Future Sale"**

The last sentence of the second paragraph under the heading "Shares Eligible for Future Sale" on page 164 of the Preliminary Prospectus to read as follows:

"Although we have been approved, subject to notice of issuance, 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."

# **Update to "Underwriting"**

The sentence under the heading "Underwriting — Listing on The Nasdaq Capital Market" on page 173 of the Preliminary Prospectus to read as follows:

"We have been approved, subject to notice of issuance, to list our common stock on the Nasdaq Capital Market under the symbol "BTAI."

The Company has filed a registration statement (including a preliminary prospectus) on Form S-1 with the SEC for the offering for which this communication relates. Before you invest, you should read the preliminary prospectus in the registration statement for the offering for which this communication relates and other documents the Company files with the SEC for more complete information about the Company and this offering. You may obtain those documents for free by visiting EDGAR on the SEC Web site at www.sec.gov. Copies of the preliminary prospectus may also be obtained by contacting Barclays Capital Inc., Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717, by telephone at 888-603-5847 or by email at barclaysprospectus@broadridge.com; UBS Securities LLC, Attention: Prospectus Department, 1285 Avenue of the Americas, New York, NY 10019, by telephone at 888-827-7275 or by email at ol-prospectusrequest@ubs.com; or BMO Capital Markets Corp., Attention: Equity Syndicate Department, 3 Times Square, 25th Floor, New York, NY 10036, by telephone at 800-414-3627, or by email at bmoprospectus@bmo.com.