

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

February 23, 2018

Vimal Mehta, Ph.D. Chief Executive Officer BioXcel Therapeutics, Inc. 780 East Main Street Branford, CT 06405

Re: BioXcel Therapeutics, Inc.
Registration Statement on Form S-1
Filed February 12, 2018
File No. 333-222990

Dear Dr. Mehta:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

## Registration Statement on Form S-1

## Risk Factors

Our failure to find third party collaborators, page 39

- 1. We note your disclosure that you have a collaboration research agreement with Nektar Therapeutics, Inc. Please file this agreement as an exhibit or tell us why you believe that you are not required to pursuant to Item 601(b)(10) of Regulation S-K. Please also disclose the following in the Business section with respect to this agreement:
  - Each parties' rights and obligations;
  - Termination provisions;

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- Duration of agreement and royalty term;
- Investment features or share purchases; and
- Payment provisions, including total up front or execution payments received or paid, aggregate amounts paid or received to date, aggregate future milestone payments to be paid or received, royalty rates, and profit or revenue sharing provisions.

## Employment Arrangments, page 146

2. We note your disclosure that Dr. O'Neill currently has a consulting agreement with the company. Please file this agreement as an exhibit or tell us why you believe that you are not required to pursuant to Item 601(b)(10) of Regulation S-K and disclose the material terms of this agreement in this section.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Bonnie Baynes at 202-551-4924 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters. Please contact Ada D. Sarmento at 202-551-3798 or Mary Beth Breslin at 202-551-3625 with any otherquestions.

Division of Corporation Finance Office of Healthcare & Insurance

cc: Jeffrey Fessler, Esq.