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

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No. 1)*

BioXcel Therapeutics, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

09075P105

(CUSIP Number)

Vimal Mehta

555 Long Wharf Drive

New Haven, CT 06511

(475) 238-6837

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

June 6, 2024

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), Rule 13d-1(f) or Rule 13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7(b) for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1 Names of Reporting Persons

BioXcel LLC

2 Check the Appropriate Box if a Member of a Group

(a)
(b)

3 SEC Use Only

4 Source of Funds (See Instructions)

OO

5 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

6 Citizenship or Place of Organization

Delaware

7 Sole Voting Power

0

**NUMBER OF
SHARES
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON
WITH**

8 Shared Voting Power

7,685,501

9 Sole Dispositive Power

0

10 Shared Dispositive Power

7,685,501

11 Aggregate Amount Beneficially Owned by Each Reporting Person

7,685,501

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares

13 Percent of Class Represented by Amount in Row (11)

20.5%

14 Type of Reporting Person

OO

1 Names of Reporting Persons

BioXcel Holdings, Inc.

2 Check the Appropriate Box if a Member of a Group

(a)
(b)

3 SEC Use Only

4 Source of Funds (See Instructions)

OO

5 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

6 Citizenship or Place of Organization

Delaware

7 Sole Voting Power

0

**NUMBER OF
SHARES
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON
WITH**

8 Shared Voting Power

7,685,501

9 Sole Dispositive Power

0

10 Shared Dispositive Power

7,685,501

11 Aggregate Amount Beneficially Owned by Each Reporting Person

7,685,501

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares

13 Percent of Class Represented by Amount in Row (11)

20.5%

14 Type of Reporting Person

CO

1 Names of Reporting Persons

Vimal Mehta

2 Check the Appropriate Box if a Member of a Group

(a)
(b)

3 SEC Use Only

4 Source of Funds (See Instructions)

OO

5 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

6 Citizenship or Place of Organization

United States

7 Sole Voting Power

1,143,121

8 Shared Voting Power

7,685,501

9 Sole Dispositive Power

1,143,121

10 Shared Dispositive Power

7,685,501

11 Aggregate Amount Beneficially Owned by Each Reporting Person

8,830,622

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares

13 Percent of Class Represented by Amount in Row (11)

23.5%

14 Type of Reporting Person

IN

**NUMBER OF
SHARES
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON
WITH**

EXPLANATORY NOTE

This Amendment No. 1 to Schedule 13D (“Amendment No. 1”) amends and supplements the Schedule 13D originally filed with the United States Securities and Exchange Commission on September 28, 2023 (as amended to date, the “Schedule 13D”), relating to the shares of common stock, par value \$0.001 per share (the “Common Stock”), of BioXcel Therapeutics, Inc., a Delaware corporation (the “Issuer”). Capitalized terms used herein without definition shall have the meanings set forth in the Schedule 13D.

Item 4. Purpose of Transaction.

Item 4 of the Schedule 13D is hereby amended and supplemented as follows:

Share Transfers

On June 4, 2024, pursuant to the previously disclosed Termination Agreement and Repurchase Agreement, BioXcel LLC transferred 566,245 shares of Common Stock to BioXcel Holdings, Inc. and 42,976 shares of Common Stock to the Sellers, each in exchange for common interests in BioXcel LLC. Subsequently, BioXcel Holdings, Inc. transferred an aggregate of 566,245 shares of Common Stock to certain of its stockholders in exchange for their interests in BioXcel Holdings, Inc. (the “Share Transfers”).

Open Market Sales to Cover Tax Liabilities

Pursuant to the terms of the Termination Agreement, on June 4, 2024 and June 5, 2024, BioXcel LLC sold an aggregate of 252,028 shares of Common Stock, sufficient to cover certain tax liabilities incurred in connection with the Share Transfers.

On June 4, 2024, BioXcel LLC sold an aggregate of 126,014 shares of Common Stock at a weighted average price of \$1.6309. The securities were sold in a series of open market transactions at a per share prices ranging from \$1.605 to \$1.68. On June 5, 2024, BioXcel LLC sold an additional 126,014 shares of Common Stock at a weighted average price of \$1.5841. The securities were sold in a series of open market transactions at a per share prices ranging from \$1.55 to \$1.635. For each such trade, the Reporting Persons undertake to provide upon request of the Securities and Exchange Commission staff, the Issuer, or any shareholder of the Issuer, full information regarding the number of securities sold at each separate price within the range set forth above.

Amended BioXcel Warrant

On June 6, 2024, pursuant to the Repurchase Agreement, BioXcel LLC delivered to the Sellers an amended and restated warrant to purchase common interests of BioXcel LLC (the “BioXcel Warrant”). The BioXcel Warrant is exercisable for 120 common interests in BioXcel LLC at an exercise price per common interest equal to \$1,709.88. As soon as commercially reasonable after each exercise of the BioXcel Warrant, BioXcel LLC has agreed to redeem from the Sellers each common interest in BioXcel LLC acquired pursuant to the exercise of the warrant in exchange for 149.22 shares of Common Stock. The BioXcel Warrant expires on August 31, 2026.

Item 5. Interest in Securities of the Issuer.

Item 5 of the Schedule 13D is hereby amended and restated in its entirety as follows:

(a) – (b)

The following sets forth, as of the date of this Schedule 13D, the aggregate number of shares of Common Stock and percentage of Common Stock beneficially owned by each of the Reporting Persons, as well as the number of shares of Common Stock as to which each Reporting Person has the sole power to vote or to direct the vote, shared power to vote or to direct the vote, sole power to dispose or to direct the disposition of, or shared power to dispose or to direct the disposition of, as of the date hereof, based on 37,530,821 shares of Common Stock outstanding as of May 7, 2024, as disclosed in the Issuer’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2024, filed with the SEC on May 9, 2024.

Reporting Person	Amount beneficially owned	Percent of class	Sole power to vote or to direct the vote	Shared power to vote or to direct the vote	Sole power to dispose or to direct the disposition	Shared power to dispose or to direct the disposition
BioXcel LLC	7,685,501	20.5%	0	7,685,501	0	7,685,501
BioXcel Holdings, Inc.	7,685,501	20.5%	0	7,685,501	0	7,685,501
Vimal Mehta	8,830,622	23.5%	1,143,121	7,687,501	1,143,121	7,687,501

BioXcel LLC is the record holder of 7,685,501 shares of Common Stock. Dr. Mehta is the record holder of 43,564 shares of Common Stock and Dr. Mehta's spouse is the record holder of 2,000 shares of Common Stock. Dr. Mehta is the beneficial owner of 1,093,448 shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of the date hereof and 6,109 shares of Common Stock underlying restricted stock units that will vest within 60 days of the date hereof.

BioXcel LLC is a subsidiary of BioXcel Holdings, Inc. Dr. Mehta is an executive officer and the sole member of the board of directors of BioXcel Holdings, Inc. and an executive officer and one of two managers on the board of managers of BioXcel LLC. As such, each of Dr. Mehta and BioXcel Holdings, Inc. may be deemed to beneficially own the Common Stock held of record by BioXcel LLC.

- (c) Other than as described in this Schedule 13D, during the past 60 days, the Reporting Persons have not effected any transactions with respect to the Common Stock.
- (d) None.
- (e) Not applicable.
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SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: June 6, 2024

BioXcel LLC

By: /s/ Vimal Mehta
Name: Vimal Mehta
Title: Chief Executive Officer

BioXcel Holdings, Inc.

By: /s/ Vimal Mehta
Name: Vimal Mehta
Title: Chief Executive Officer

Vimal Mehta

By: /s/ Vimal Mehta
