UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) September 22, 2019

BioXcel Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

001-38410

(Commission File Number)

82-1386754 (IRS Employer Identification No.)

555 Long Wharf Drive New Haven, CT 06511

(Address of principal executive offices, including Zip Code)

(475) 238-6837

(Registrant's telephone number, including area code)

N/A

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each classTrading Symbol(s)Name of each exchange on which registeredCommon Stock, par value \$0.001BTAIThe Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company x

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 pursuant to Section 13(a) of the Exchange Act. x

Item 1.02 Termination of a Material Definitive Agreement.

On September 22, 2019, BioXcel Therapeutics, Inc. (the "Company") delivered written notice to Jefferies LLC terminating the Open Market Sales Agreement between the Company and Jefferies dated May 20, 2019 (the "Sales Agreement"). The termination was effective on September 23, 2019, pursuant to the terms of the Sales Agreement. The Company sold a total of 66,193 shares under the Sales Agreement, for total proceeds of approximately \$737 thousand, net of issuance costs of approximately \$22 thousand.

A copy of the Sales Agreement was filed as Exhibit 1.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 20, 2019 (the "Prior Form 8-K"). The description of the Sales Agreement contained in this Current Report on Form 8-K does not purport to be complete and is qualified in its entirety by reference to the copy of the Sales Agreement filed as Exhibit 1.1 to the Prior Form 8-K.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: September 25, 2019

BIOXCEL THERAPEUTICS, INC.

/s/ Richard Steinhart Richard Steinhart Chief Financial Officer

3