FORM SC 13D

Schedule filed to report acquisition of beneficial ownership of 5% or more of a class of equity securities

Filing Date: **2023-09-28**
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(HTML Version on secdatabase.com)

SUBJECT COMPANY

BioXcel Therapeutics, Inc.

CIK:**1720893**| IRS No.: **821386754** | State of Incorp.:**DE** | Fiscal Year End: **1231**
Type: **SC 13D** | Act: **34** | File No.: **005-90437** | Film No.: **231290638**
SIC: **2834** Pharmaceutical preparations

Mailing Address
555 LONG WHARF DRIVE
NEW HAVEN CT 06511

Business Address
555 LONG WHARF DRIVE
NEW HAVEN CT 06511
203-643-8060

FILED BY

BioXcel LLC

CIK:**1651990**| IRS No.: **202612128** | State of Incorp.:**DE** | Fiscal Year End: **1231**
Type: **SC 13D**
SIC: **7372** Prepackaged software

Mailing Address
2614 BOSTON POST ROAD
SUITE #33B
GUILFORD CT 06437

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203-643-8002

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

SCHEDULE 13D

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

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
4752386837
(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

September 19, 2023
(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**	

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	**7**	Sole Voting Power **0**
	8	Shared Voting Power **8,546,750**
	9	Sole Dispositive Power **0**
	10	Shared Dispositive Power **8,546,750**

11	Aggregate Amount Beneficially Owned by Each Reporting Person **8,546,750**	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares ☐	
13	Percent of Class Represented by Amount in Row (11) **29.2%**	
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**		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	Sole Voting Power **0**
		8	Shared Voting Power **8,546,750**
		9	Sole Dispositive Power **0**
		10	Shared Dispositive Power **8,546,750**
11	Aggregate Amount Beneficially Owned by Each Reporting Person **8,546,750**		
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares ☐		
13	Percent of Class Represented by Amount in Row (11) **29.2%**		
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**		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING		7	Sole Voting Power **955,895**
		8	Shared Voting Power

		8,548,750
PERSON WITH	**9**	Sole Dispositive Power **955,895**
	10	Shared Dispositive Power **8,548,750**
11	Aggregate Amount Beneficially Owned by Each Reporting Person **9,504,645**	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares ☐	
13	Percent of Class Represented by Amount in Row (11) **32.5%**	
14	Type of Reporting Person **IN**	

Item 1. Security and Issuer.

This statement on Schedule 13D (the "Schedule 13D") relates to the shares of common stock, par value $0.001 per share (the "Common Stock"), of BioXcel Therapeutics, Inc., a Delaware corporation (the "Issuer"), whose principal executive office is located at 555 Long Wharf Drive, New Haven, CT 06511.

Item 2. Identity and Background.

The Schedule 13D is being filed by the following persons (each a "Reporting Person" and, collectively, the "Reporting Persons"):

BioXcel LLC
BioXcel Holdings, Inc.
Vimal Mehta

Each of BioXcel LLC and BioXcel Holdings, Inc. is organized under the laws of the State of Delaware. Mr. Mehta is a citizen of the United States.

The principal business address of each of BioXcel LLC and BioXcel Holdings, Inc. is 2614 Boston Post Road, Suite 33B, Guilford, CT 06437. The principal business address of Mr. Mehta is c/o BioXcel Therapeutics, Inc., 555 Long Wharf Drive, New Haven, CT 06511. The principal business of BioXcel Holdings, Inc. is in investing in the equity interests of BioXcel LLC, and the principal business of BioXcel LLC is in advancing research and development processes in connection with creating potential drugs and drug therapies. Mr. Mehta is the Chief Executive Officer, President, Treasurer and Secretary and a member of the board of managers of BioXcel LLC and Chief Executive Officer, President, Treasurer and Secretary and the sole member of the board of directors of BioXcel Holdings, Inc. Mr. Mehta's present principal occupation is Chief Executive Officer and President of the Issuer, and is also a member of the Issuer's Board of Directors (the "Board").

During the last five years, none of the Reporting Persons (i) has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration.

Prior to the Issuer's initial public offering consummated on March 12, 2018 (the "IPO"), the Issuer entered into an asset contribution agreement, effective June 30, 2017, as amended and restated on November 7, 2017, with BioXcel LLC (f/k/a BioXcel Corporation), pursuant to which BioXcel LLC agreed to contribute to the Issuer all of its rights, title and interest in and to certain clinical development programs, including BXCL501, BXCL701, BXCL502 and BXCL702 (collectively, the "Candidates"), and all of the assets and liabilities associated with the Candidates, in consideration for (i) 9,480,000 shares of Common Stock, (ii) $1 million, (iii) $500,000 upon the later of the 12 month anniversary of the IPO 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 the IPO and the first dosing of a patient in the Phase 2 Proof of Concept 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.

On March 12, 2018, Mr. Mehta's spouse purchased 2,000 shares of Common Stock in the IPO for $11.00 per share or for aggregate consideration of $22,000. From November 30, 2018 through August 16, 2019, Mr. Mehta purchased a total of 9,957 shares of Common Stock for aggregate consideration of approximately $67,345. Each of Mr. Mehta and his spouse used cash on hand to make such purchases. The remaining securities acquired by Mr. Mehta as of the date hereof were awarded to him as employee compensation for services rendered to the Issuer.

Item 4. Purpose of Transaction.

Termination Agreement

On September 19, 2023, BioXcel Holdings, Inc., InveniAI LLC, Krishnan Nandabalan, Vimal Mehta, and certain other stockholders of BioXcel Holdings, Inc. entered into an agreement to terminate a previous stockholders agreement between stockholders of BioXcel Holdings, Inc. (the "Termination Agreement"). Subsequently, following entry into the Termination Agreement, the stockholders of BioXcel Holdings, Inc. entered into a new stockholders agreement on September 19, 2023, pursuant to which, among other things, Mr. Mehta became the sole director of BioXcel Holdings, Inc.

Pursuant to the Termination Agreement, BioXcel Holdings, Inc. agreed, as soon as commercially reasonable in compliance with applicable securities laws, to (i) cause BioXcel LLC to transfer 566,245 shares of Common Stock to BioXcel Holdings, Inc. in exchange for common interests in BioXcel LLC; (ii) cause BioXcel LLC to sell 252,028 shares of Common Stock pursuant to either a registered offering or Rule 144 of the Securities Act of 1933, as amended (such sales, the "Tax Coverage Sales"); (iii) cause BioXcel LLC to effect, following the receipt of funds from one or more Tax Coverage Sales, a special distribution to BioXcel Holdings, Inc. of all of the proceeds from the applicable Tax Coverage Sales in exchange for common interests in BioXcel LLC; (iv) declare and pay a pro rata dividend of all proceeds from such Tax Coverage Sales received from BioXcel LLC to all of the stockholders of BioXcel Holdings, Inc. as of the time of each corresponding Tax Coverage Sale to cover the tax liabilities incurred by the stockholders as a result of the Tax Coverage Sales; provided, however, that BioXcel Holdings, Inc. will have the option to refrain from making any Tax Coverage Sales and instead cover the tax liabilities incurred by the stockholders in cash (the "Cash Coverage Option"); and (v) transfer, concurrently with each Tax Coverage Sale, pro rata to the stockholders listed therein an amount of shares of Common Stock equal to 224.675% of such number of shares sold pursuant to the applicable Tax Coverage Sale (the "Offset Distribution"); provided, however, that in the event that the Cash Coverage Option is elected, BioXcel Holdings, Inc. will transfer 566,245 shares of Common Stock.

Each stockholder receiving an Offset Distribution without restrictive legends limiting resale agreed to not, without the written consent of BioXcel Holdings, Inc., directly or indirectly, sell, contract to sell, sell any option or contract to purchase, grant any option, right or warrant to purchase or otherwise transfer or dispose such shares within 180 days following the date the Offset Distribution is received (the "Lockup"); provided that (i) the Lockup will only apply to 75% of each of the shares distributed, (ii) beginning on the date that is 60 days after such Offset Distribution, the Lockup will only apply to 50% of each of such shares, and (ii) beginning on the date that is 120 days after such Offset Distribution, the Lockup will only apply to 25% of each of such shares.

Repurchase Agreement

In connection with the Termination Agreement, on September 19, 2023, BioXcel LLC, Vipin Agarwal, Rashmi Agarwal (together with Vipin Agarwal, the "Sellers") and InveniAI LLC entered into a repurchase agreement (the "Repurchase Agreement), pursuant to which BioXcel LLC agreed to transfer to the Sellers 42,976 shares of Common Stock as soon as commercially reasonable following November 15, 2023. In addition, following the transfer of such shares, BioXcel LLC agreed to deliver to the Sellers an amended and restated warrant to purchase common interests of BioXcel LLC (the "BioXcel Warrant"). The BioXcel Warrant will be 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 will redeem from the Sellers each common interest purchased under the warrant in exchange for 149.22 shares of Common Stock. The BioXcel Warrant expires on August 31, 2026.

The foregoing description of the Termination Agreement and Repurchase Agreement do not purport to be complete and are qualified in their entirety by the full text of such agreements, each of which is attached as an exhibit to this Schedule 13D and incorporated herein by reference.

General

The Reporting Persons acquired the securities described in this Schedule 13D for investment purposes and they intend to review their investments in the Issuer on a continuing basis. Any actions the Reporting Persons might undertake will be dependent upon the Reporting Persons' review of numerous factors, including, but not limited to: an ongoing evaluation of the Issuer's business, financial condition, operations and prospects; price levels of the Issuer's securities; general market, industry and economic conditions; the relative attractiveness of alternative business and investment opportunities; and other future developments.

The Reporting Persons may acquire additional securities of the Issuer, or retain or sell all or a portion of the securities then held, in the open market or in privately negotiated transactions. In addition, the Reporting Persons, including Mr. Mehta in his positions as Chief Executive Officer and President of the Issuer and a director on the Issuer's Board, may engage in discussions with management, the Board, and other securityholders of the Issuer and other relevant parties or encourage, cause or seek to cause the Issuer or such persons to consider or explore extraordinary corporate transactions, such as: a merger, reorganization or take-private transaction that could result in the de-listing or de-registration of the Common Stock; security offerings and/or stock repurchases by the Issuer; sales or acquisitions of assets or businesses; changes to the capitalization or dividend policy of the Issuer; or other material changes to the Issuer's business or corporate structure, including changes in management or the composition of the Board.

To facilitate their consideration of such matters, the Reporting Persons may retain consultants and advisors and may enter into discussions with potential sources of capital and other third parties. The Reporting Persons may exchange information with any such persons pursuant to appropriate confidentiality or similar agreements. The Reporting Persons will likely take some or all of the foregoing steps at preliminary stages in their consideration of various possible courses of action before forming any intention to pursue any particular plan or direction.

Other than as described above, the Reporting Persons do not currently have any plans or proposals that relate to, or would result in, any of the matters listed in Items 4(a)–(j) of Schedule 13D, although, depending on the factors discussed herein, the Reporting Persons may change their purpose or formulate different plans or proposals with respect thereto at any time.

Item 5. Interest in Securities of the Issuer.

(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 29,267,197 shares of

Common Stock outstanding as of August 10, 2023, as disclosed in the Issuer's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2023, filed with the SEC on August 14, 2023.

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	8,546,750	29.2%	0	8,546,750	0	8,546,750
BioXcel Holdings, Inc.	8,546,750	29.2%	0	8,546,750	0	8,546,750
Vimal Mehta	9,504,645	32.5%	955,895	8,548,750	955,895	8,548,750

BioXcel LLC is the record holder of 8,546,750 shares of Common Stock. Mr. Mehta is the record holder of 29,613 shares of Common Stock and Mr. Mehta's spouse is the record holder of 2,000 shares of Common Stock. Mr. Mehta is the beneficial owner of 926,282 shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of the date hereof.

BioXcel LLC is a subsidiary of BioXcel Holdings, Inc. Mr. 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 and BioXcel Holdings, Inc. As such, each of Mr. Mehta and BioXcel Holdings, Inc. may be deemed to beneficially own the Common Stock held of record by BioXcel LLC.

(c) On September 14, 2023, a portion of Mr. Mehta's restricted stock units vested into 2,610 shares of Common Stock. 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.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

10b5-1 Trading Plan

On August 31, 2022, Mr. Mehta entered into a trading plan (the "2022 10b5-1 Trading Plan") pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended. The 2022 10b5-1 Trading Plan originally provided that a broker dealer may make periodic sales of up to an aggregate 499,437 shares of Common Stock on behalf of Mr. Mehta. As of the date hereof, 294,000 shares of Common Stock remain to be sold under the 2022 10b5-1 Trading Plan on behalf of Mr. Mehta. This description of the 2022 10b5-1 Trading Plan does not purport to be complete and is qualified in its entirety by the text of the 2022 10b5-1 Trading Plan, the form of which is attached as an exhibit to this Schedule 13D and incorporated herein by reference. Mr. Mehta may in the future instruct the broker dealer to sell shares to cover withholding taxes associated with the vesting of his various equity awards.

Item 4 summarizes certain provisions of the Termination Agreement and the Repurchase Agreement and is incorporated herein by reference. A copy of each such agreement is attached as an exhibit to this Schedule 13D, and is incorporated herein by reference.

Other than as described herein, none of the Reporting Persons has any contracts, arrangements, understandings or relationships (legal or otherwise) with any person with respect to any securities of the Issuer, including but not limited to any contracts, arrangements, understandings or relationships concerning the transfer or voting of such securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or losses, or the giving or withholding of proxies.

Item 7. Materials to be Filed as Exhibits

Exhibit Number	Description
1	Joint Filing Agreement.
2	Termination Agreement, dated as of September 19, 2023, by and among BioXcel Holdings, Inc., InveniAI LLC, and certain stockholders named therein.
3	Repurchase Agreement, dated as of September 19, 2023, by and between BioXcel Holdings, Inc., InveniAI LLC, Vipin Agarwal and Rashmi Agarwal.
4	10b5-1 Trading Plan for Vimal Mehta entered into August 31, 2022.

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: September 28, 2023

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

Exhibit 1

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k)(1) promulgated under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that they are jointly filing this statement on Schedule 13D. Each of them is responsible for the timely filing of such statement and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein; but none of them is responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

IN WITNESS WHEREOF, the undersigned hereby execute this Joint Filing Agreement as of the 28th day of September 2023.

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

Exhibit 2

Execution Version

BIOXCEL HOLDINGS, INC.

TERMINATION AGREEMENT

This TERMINATION AGREEMENT (this "Agreement") is made as of September 19, 2023 (the "Effective Date"), by and among BioXcel Holdings, Inc., a Delaware corporation (the "Company"), InveniAI LLC, a Delaware limited liability company ("InveniAI") (only as to Sections 4(d), 7(d), and 17(b)), Krishnan Nandabalan, Vimal Mehta, and the stockholders listed on the signature pages hereto (collectively, the "Stockholders", and each individually, a "Stockholder").

WHEREAS, the Company and certain of the Stockholders are parties to that certain Stockholders Agreement, dated as of April 3, 2023 (the "Stockholders Agreement");

WHEREAS, the Company and the Stockholders party thereto desire to terminate the Stockholders Agreement in exchange for a release of claims and reimbursement of certain expenses (the "Termination");

WHEREAS, the Company and the stockholders listed on Schedule A hereto (the "Schedule A Stockholders") desire to effect a repurchase of outstanding shares of common stock of the Company ("Company Shares") in exchange for shares of common stock of BioXcel Therapeutics, Inc. ("BTAI Shares") and warrants to purchase Class B Non-Voting Membership Interests of InveniAI ("InveniAI Warrants") (collectively, the "Redemption");

WHEREAS, InveniAI is a beneficiary of certain transactions and arrangements among the parties hereto and certain other parties of which the Redemption is a constituent part;

WHEREAS, the Stockholders desire, subject to the terms and conditions hereof, to enter into this Termination Agreement to provide for the Termination and Redemption;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, the Parties hereby agree as follows:

1. Termination. The Stockholders Agreement is hereby terminated in its entirety effective as of the Effective Date. After the Effective Date, none of the Stockholders shall have any further rights or obligations under the Stockholders Agreement.

2. Reimbursement. The Company hereby agrees to directly pay $250,000 of reasonable and documented legal expenses of the Schedule A Stockholders within 30 days of the Effective Date.

3. Mutual Release.

(a) Release by the Schedule A Stockholders. For good and valuable consideration, the receipt and sufficiency of which is acknowledged, each of the Schedule A Stockholders, on their own behalf and on behalf of each of their respective past, present, and future agents, representatives, heirs, administrators, partnerships, joint ventures, executors, trusts, trustees, estates, spouses, successors, assigns, and attorneys, and, with respect to such entities, any other person acting by, through, under, or in concert with any of the persons or entities listed above, and their successors and assigns does hereby irrevocably and unconditionally release, acquit, and forever discharge the Company, each of the persons and entities listed on Schedule B hereto (the "Schedule B Stockholders"), and any and all of their respective past, present, or future directors, managers, principals, officers, executives, representatives, consultants, agents, representatives, heirs, administrators, partnerships, joint ventures, executors, trusts, trustees, estates, spouses, successors, assigns, and attorneys, and, with respect to such entities, any other person acting by, through, under, or in concert with any of the persons or entities listed above, from and with respect to any and all claims (including derivative claims), demands, disputes, actions, suits, liabilities, debts, controversies, contracts, agreements, obligations, damages, levies, judgments, causes of action, and contingencies of whatever kind, nature, or description, whether arising out of any alleged violation of any federal or state statute, tort, negligence, professional standings, breach of contract, including, without limitation, any and all claims for breach of a fiduciary duty, breach of duty to disclose, breach of duty of loyalty, fraud, misrepresentation, misappropriation, warranty, or any other theory, whether legal or equitable, and whether now

ended or continuing, whether asserted or unasserted, which any of the Schedule A Stockholders ever had, now has or have, or hereafter can, shall, or may have, for and/or upon, or by reason of any matter, cause, thing, act, or omission up to the Effective Date, except for the obligations and representations of the Company and Schedule B Stockholders under this Agreement.

(b) Release by the Schedule B Stockholders. For good and valuable consideration, the receipt and sufficiency of which is acknowledged, each Schedule B Stockholders, on their own behalf and on behalf of each of their respective past, present, and future agents, representatives, heirs, administrators, partnerships, joint ventures, executors, trusts, trustees, estates, spouses, successors, assigns, and attorneys, and, with respect to such entities, any other person acting by, through, under, or in concert with any of the persons or entities listed above, and their successors and assigns, does hereby irrevocably and unconditionally release, acquit, and forever discharge each of the Company, the Schedule A Stockholders, and any and all of their respective past, present, or future directors, managers, principals, officers, executives, representatives, consultants, agents, representatives, heirs, administrators, partnerships, joint ventures, executors, trusts, trustees, estates, spouses, successors, assigns, and attorneys, and, with respect to such entities, any other person acting by, through, under, or in concert with any of the persons or entities listed above, from and with respect to any and all claims (including derivative claims), demands, disputes, actions, suits, liabilities, debts, controversies, contracts, agreements, obligations, damages, levies, judgments, causes of action, and contingencies of whatever kind, nature, or description, whether arising out of any alleged violation of any federal or state statute, tort, negligence, professional standings, breach of contract, including, without limitation, any and all claims for breach of a fiduciary duty, breach of duty to disclose, breach of duty of loyalty, fraud, misrepresentation, misappropriation, warranty, or any other theory, whether legal or equitable, and whether now ended or continuing, whether asserted or unasserted, which any of the Schedule B Stockholders ever had, now has or have, or hereafter can, shall, or may have, for and/or upon, or by reason of any matter, cause, thing, act, or omission up to the Effective Date, except for the obligations and representations of the Company and Schedule A Stockholders under this Agreement.

4. Redemption. The Company and each of the Schedule A Stockholders hereby agree and covenant that they will:

(a) Transfer to BioXcel LLC. As soon as commercially reasonable following the Effective Date in compliance with applicable securities laws, the Company will use commercially reasonable efforts to cause BioXcel LLC to transfer 566,245 BTAI Shares to the Company in exchange for common interests in BioXcel LLC.

(b) Tax Coverage Sales and Dividends of Tax Coverage Funds. As soon as commercially reasonable following the Effective Date in compliance with applicable securities laws, the Company will cause BioXcel LLC to use commercially reasonable efforts to sell 252,028 BTAI Shares, either (i) pursuant to the Registration Statement on Form S-3 (333-240118), or (ii) pursuant to an exemption from the Securities Act of 1933, as amended (the "Act") and may, if needed, enter into a 10b5-1 plan (in substantially the form attached as Exhibit A hereto) to facilitate such sales over a period ending not more than six months from entering into such plan (each such sale, a "Tax Coverage Sale," and all of such sales, the "Tax Coverage Sales"). As soon as commercially reasonable following the receipt of funds from one or more Tax Coverage Sales, the Company shall cause BioXcel LLC to effect a special distribution to the Company of all of the proceeds from the applicable Tax Coverage Sale(s) to the Company in exchange for common interests in BioXcel LLC. From time to time following the receipt of the proceeds of one or more Tax Coverage Sales from BioXcel LLC, the Company shall, to the extent not prohibited by applicable law, declare and pay a pro rata dividend of all proceeds from such Tax Coverage Sale(s) received from BioXcel LLC to all of the stockholders of the Company as of the time of each corresponding Tax Coverage Sale (which shall be the same stockholders and in the same pro rata amounts as their legal ownership as of the time of declaration and the record date therefor, with the record date for such dividend being the time it is so declared) to cover the tax liabilities incurred by the stockholders as a result of the Tax Coverage Sales and transfer of the Offset Distributions (the "Tax Coverage Funds"); provided, however, that the Tax Coverage Funds shall in each instance be reduced by taking into account amounts paid (or to be paid) directly by the Company to the State of Connecticut with respect to income taxes owed solely as a result of the Tax Coverage Sales and transfer of the Offset Distributions. Notwithstanding the foregoing, the Company shall have the option, in its sole discretion, to refrain from making any Tax Coverage Sales and instead to cover the tax liabilities incurred by the stockholders as a result of the Offset Distributions in cash (the "Cash Coverage Option"). The parties understand and agree that for the purposes of this Agreement, in each instance of any action to be taken by the

Company (or by BioXcel LLC), either entity may perform such actions for administrative convenience when commercially reasonable and consistent with the intent of this Agreement.

(c) BTAI Interests. Concurrently with each sale of BTAI Shares pursuant to a Tax Coverage Sale, to the extent not prohibited by applicable law, the Company will transfer an Offset Distribution (as defined below) of BTAI Shares to the Schedule A Stockholders. Each of the Company and the Schedule A Stockholders acknowledge and agree that an aggregate of 566,245 BTAI Shares shall be transferred as Offset Distributions to the Schedule A Stockholders in connection with BTAI Share Exchanges, subject to the treatment of fractional shares and any other adjustments otherwise expressly required herein. In the event the Company elects the Cash Coverage Option, it shall transfer an aggregate of 566,245 BTAI Shares as Offset Distributions to the Schedule A Stockholders. Each Stockholder listed on Schedule A hereto will receive their pro rata portion of such Offset Distribution according to the percentages specified on Schedule A hereto. In exchange for each Offset Distribution, immediately following the declaration of a dividend by the Company of the associated Tax Coverage Funds and to the extent not prohibited by applicable law, the Schedule A Stockholders will transfer and surrender to the Company a Corresponding Percentage of Company Shares, free and clear of any pledge or other encumbrance, and such Corresponding Percentage of Company Shares held by the Schedule A Stockholder hereto shall automatically be repurchased by the Company and shall cease to be outstanding, notwithstanding the fact that any certificate(s) representing such Company Shares have not yet been surrendered to the Company, ultimately resulting in the transfer and surrender to the Company of 100% of the Company Shares held by the Schedule A Stockholders (each such exchange of Company Shares for Offset Distributions, a "BTAI Share Exchange", and the date of each such exchange, a "Redemption Date").

i. An "Offset Distribution" means BTAI Shares in the amount of 224.675% of such number of BTAI Shares sold pursuant to the applicable Tax Coverage Sale. In the event the Company elects the Cash Coverage Option, the Offset Distribution amount shall be 566,245 BTAI Shares.

ii. A "Corresponding Percentage" shall mean the number of Company Shares held by a Schedule A Stockholder as of the Effective Date multiplied by a percentage, the numerator of which is (i) the number of BTAI Shares being transferred in each such BTAI Share Exchange and the denominator of which is (ii) 566,245, the total number of BTAI Shares that are subject to being transferred as Offset Distributions in connection with the BTAI Share Exchanges, ultimately resulting in 100% of the Company Shares held by the Schedule A Stockholders being transferred and surrendered in the BTAI Share Exchanges once 100% of the BTAI Shares subject to the BTAI Share Exchanges are transferred to such Stockholders in consideration thereof. For example, if 100 BTAI Shares are distributed in a BTAI Share Exchange out of a 1,000 total BTAI Shares subject to Offset Distributions in connection with BTAI Share Exchanges, then 10% of the Company Shares held by each Schedule A Stockholder will be transferred and surrendered as the Corresponding Percentage.

iii. On or before each Redemption Date, each Schedule A Stockholder who holds Company Shares in certificated form shall surrender the certificate or certificates representing such shares (or, if such registered holder alleges that no certificates were issued or such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Company to indemnify the Company against any claim that may be made against the Company on account of the alleged loss, theft or destruction of such certificate) to the Company, in the manner and at the place designated by the Company. As to all such certificated Company Shares and all uncertificated Company Shares, all of the Company Shares that are transferred and surrendered upon a BTAI Share Exchange will be deemed cancelled by the Company. In the event less than all of the Company Shares represented by a certificate are redeemed, a new certificate, instrument, or book entry representing the unredeemed Company Shares shall promptly be issued to such Stockholder. The Company and the Schedule A Stockholders acknowledge and agree that this Agreement shall constitute a stock power, and that each of the Schedule A Stockholders hereto irrevocably constitutes

and appoints each and any officer of the Company as its attorney-in-fact to record the transfer of the Corresponding Percentage of the Company Shares on the stock ledger and books of the Company in accordance with the terms of this Agreement, with full power of substitution in the premises.

iv. In lieu of any fractional BTAI Shares to which a Stockholder would otherwise be entitled, the number of BTAI Shares of shall be rounded down and in lieu of any such fractional BTAI Share the Company shall pay cash to such stockholder the amount computed by multiplying such fractional interest by the fair market value of a full BTAI Share as of the date of such Offset Distribution, based on the closing price as of such date.

v. The Company agrees to use commercially reasonable best efforts in compliance with applicable securities laws to remove restrictive legends prohibiting the resale of such securities from the BTAI Shares transferred as an Offset Distribution in connection therewith, or as soon as practicable thereafter. Any Offset Distribution that is distributed without restrictive legends limiting the resale of such securities pursuant to the Act ("S-3 Shares") shall be subject to the Lockup.

vi. Sections 4(b) and 4(c) shall be effected in the following sequence: each Tax Coverage Sale will have a concurrent distribution of an Offset Distribution to the Schedule A Stockholders, followed by the transfer of Tax Coverage Funds to the Company, followed thereafter from time to time by a declaration of a dividend of the Tax Coverage Funds to the Company's stockholders for the purpose of providing funds to pay the tax liability associated with such Tax Coverage Sales and Offset Distributions (with the record date for such dividend being the time it is so declared). Immediately following the declaration of such dividend, automatically and without any further action by any of the parties, the Corresponding Percentage of Company Shares shall be deemed to be surrendered by the Schedule A Stockholders and retired by the Company.

vii. The "Lockup" means that, until the date that is 180 days after such Offset Distribution shares are received, each Schedule A Stockholder shall not, without the written consent of the Company, directly or indirectly, sell, contract to sell, sell any option or contract to purchase, grant any option, right or warrant to purchase or otherwise transfer or dispose of any of the S-3 Shares; provided that (i) the Lockup shall only apply to 75% of each of the Schedule A Stockholder's S-3 Shares, (ii) beginning on the date that is 60 days after such Offset Distribution, the Lockup shall only apply to 50% of each of the Schedule A Stockholder's S-3 Shares, and (ii) beginning on the date that is 120 days after such Offset Distribution, the Lockup shall only apply to 25% of each of the Schedule A Stockholder's S-3 Shares.

(d) InveniAI Interests. As soon as commercially reasonable and in compliance with applicable securities laws, following the Effective Date and the receipt by InveniAI of a 409A (or similar) valuation report (and in no event more than six months after the Effective Date), InveniAI will issue to the Schedule A Stockholders InveniAI Warrants (with such warrants expiring ten (10) years from issuance) to purchase an aggregate of 7.598% of the outstanding InveniAI membership interests on a fully-diluted basis as of the date hereof, with the exercise price of such warrants equal to the fair market value of such Class B Non-Voting Membership Interests on or about the date of issuance of the InveniAI Warrants, in the pro rata percentages specified on Schedule A hereto. InveniAI and Vipin Agarwal will cooperate to establish mutually agreeable provisions of such warrants that are commercially reasonable, including but not limited to with respect to notice, forfeiture, and exercise timing and mechanics.

5. Splits and Reorganizations. In the event of any change in the number of BTAI Shares outstanding as a result of a stock split, pro rata share dividend or any similar change in the number of shares outstanding (an "Adjustment Event"), all BTAI share amounts in this Agreement will be adjusted such that they represent the same percentage of shares as immediately prior to the record date associated with such Adjustment Event.

6. Tax Treatment. The parties hereto agree that for income tax purposes, each Offset Distribution will be the redemption price associated with each associated transfer and sale to the Company of the Corresponding Percentage on a Redemption Date. The Company will have the option to file an election (if available by law and whether under Section 1377 of the Internal Revenue

Code or otherwise), to "close the books" with respect to income allocations with respect to the amounts of shares and periods of Company ownership of the Stockholders, and the parties hereto shall cooperate with respect to the preparing and filing any such election.

7. Representations.

a) Each of the Stockholders hereby represents and warrants that:

i. (i) the undersigned has full legal capacity to execute and deliver this Agreement and to perform the undersigned's obligations hereunder; (ii) this Agreement has been duly executed and delivered by the undersigned and is the legal, valid and binding obligation of the undersigned enforceable against it in accordance with the terms thereof or hereof, as the case may be, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally and the availability of equitable remedies; (iii) as of the date hereof, the Company Shares are free and clear of any pledge, lien, security interest, encumbrance, equities or claim; and (iv) no consent, approval, authorization, order, registration or qualification of any third party or with any court or governmental agency or body having jurisdiction over the undersigned is required to be obtained by the undersigned for the transfer of the Company Shares pursuant to this Agreement; and

b) Each of the Stockholders receiving BTAI Shares and InveniAI Warrants pursuant to this Agreement hereby represents and warrants that:

ii. The securities to be received hereunder will be acquired for the Stockholder's own account, not as nominee or agent, and not with a view to the resale or distribution of any part thereof in violation of the 1933 Act, and the Stockholder has no present intention of selling, granting any participation in, or otherwise distributing the same in violation of the 1933 Act.

iii. The Stockholder can bear the economic risk and complete loss of its investment in securities hereunder and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment contemplated hereby.

iv. The Stockholder understands that the InveniAI Warrants and certain of the BTAI Shares received pursuant to this Agreement may be characterized as "restricted securities" under the U.S. federal securities laws inasmuch as they are being acquired in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the 1933 Act only in certain limited circumstances.

v. The Stockholder understands that the InveniAI Warrants and certain of the BTAI Shares received hereunder may bear a restrictive legend limiting their resale without registration under the 1933 Act or only in certain limited circumstances.

vi. The Stockholder is (a) an "accredited investor" within the meaning of Rule 501(a) under the 1933 Act and (b) a sophisticated investor with sufficient knowledge and experience in investing in private placement transactions to properly evaluate the risks and merits of its purchase of such securities.

vii. The Stockholder did not learn of the investment in these securities as a result of any general solicitation or general advertising.

viii. The Stockholder understands that no United States federal or state agency, or similar agency of any other country, has reviewed, approved, passed upon, or made any recommendation or endorsement of the Company or the purchase of securities hereunder.

ix. The Stockholder has not taken any of the actions set forth in, and is not subject to, the disqualification provisions of Rule 506(d)(1) of the 1933 Act.

x. Each Schedule A Stockholder understands and acknowledges that the Company is in possession of information about BioXcel Therapeutics, Inc., which may include material non-public information that may or may not be material or superior to information available to the Schedule A Stockholders. Each Schedule A Stockholder hereby waives any claim, or potential claim, it has or may have against the Company and any its affiliates relating to the Company's possession of such material non-public information.

c) The Company hereby represents and warrants that:

i. The tax basis of the Company is $0.00 with respect to each of the BTAI Shares (A) to be sold in the Tax Coverage Sales and (B) to be distributed to the Schedule A Stockholders in the BTAI Share Exchange.

ii. The Schedule A Stockholders own 12.28% of the Company's outstanding shares.

iii. BioXcel LLC owns 8,546,750 BTAI Shares.

iv. The Company owns 81.2133% of BioXcel LLC on a fully diluted basis.

d) InveniAI represents and warrants that:

i. The current ownership of BioXcel LLC in InveniAI is 76.190% on a fully-diluted basis.

ii. The Class B Non-Voting Membership Interests of InveniAI issuable upon exercise of the InveniAI Warrants shall have the same pro rata economic rights as the interests of InveniAI held by BioXcel LLC (which, for the avoidance of doubt, excludes rights comparable to BioXcel LLC's rights as InveniAI's majority owner and parent company including without limitation certain information rights, rights to certification of compliance with certain restrictive covenants, approval of material transactions, securities issuances, certain indebtedness and creation of certain direct or indirect subsidiaries, assurances of certain tax distributions, and rights to future equity issuances but not including any preference as to distributions (whether interim or liquidating)).

8. Distributions After the Effective Date. The parties acknowledge that (i) payments of Tax Coverage Funds may be made after the applicable redemption associated with the corresponding Tax Coverage Sale and (ii) the Company may make other tax distributions in respect of tax liabilities incurred by its stockholders (as reflected in allocable income on such stockholder's K-1) during its tax year 2022, tax year 2023 and tax year 2024. In each such case, the Schedule A Stockholders shall participate pro rata commensurate to their ownership of the Company as of the time of the applicable Tax Coverage Sale (in the case of clause (i)) or with respect to the applicable portion of such tax year and as reflected in their K-1 from such year on corresponding terms (in the case of clause (ii)).

9. Headings; Draftsmanship. The headings used or contained in this Agreement are for convenience of reference only and shall not affect the construction of this Agreement. The parties hereto have participated jointly in the negotiation and drafting of this Agreement and the other agreements, documents and instruments executed and delivered in connection herewith with counsel sophisticated in investment transactions. In the event an ambiguity or question of intent or interpretation arises, this Agreement and the agreements, documents and instruments executed and delivered in connection herewith shall be construed as if drafted jointly by the parties and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Agreement and the agreements, documents and instruments executed and delivered in connection herewith.

10. Counterparts. This Agreement may be executed in two (2) or more counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which together shall be deemed to constitute one and the same agreement. Counterparts may be delivered via electronic mail (including pdf or any electronic signature complying with the U.S. ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

11. Remedies; Severability.

(a) It is specifically understood and agreed that any breach of the provisions of this Agreement by any Person subject hereto will result in irreparable injury to the other parties hereto, that the remedy at law alone will be an inadequate remedy for such breach, and that, in addition to any other legal or equitable remedies which they may have, such other parties may enforce their respective rights by actions for specific performance (to the extent permitted by law).

(b) In the event of litigation relating to the subject matter of this Agreement, the prevailing party shall be entitled to receive from the other party its reasonable attorneys' fees and costs.

(c) In the event that any one (1) or more of the provisions contained herein, or the application thereof in any circumstances, is held invalid, illegal or unenforceable in any respect for any reason, the validity, legality and enforceability of any such provision in every other respect and of the remaining provisions contained herein shall not be in any way impaired thereby, it being intended that all of the rights and privileges of the parties hereto shall be enforceable to the fullest extent permitted by law.

12. Entire Agreement. This Agreement is intended by the parties hereto as a final expression of their agreement and intended to be complete and exclusive statement of the agreement and understanding of the parties hereto in respect of the subject matter contained herein.

13. Governing Law; Disputes.

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, excluding any rule of law that would cause the application of the laws of any jurisdiction other than the laws of the State of Delaware.

(b) Each of the parties hereto agrees that any dispute, controversy or claim arising out of or relating to this Agreement, or the validity, interpretation, breach or termination thereof, including claims seeking redress or asserting rights under any law, shall be resolved exclusively in the federal or state courts located in Wilmington, Delaware (the "Delaware Courts") and appellate courts having jurisdiction of appeals from such Delaware Courts. In that context, and without limiting the generality of the foregoing, each of the parties hereto irrevocably and unconditionally:

(i) submits, for itself and its property, in any action relating to this Agreement, or for recognition and enforcement of any judgment in respect thereof, to the exclusive jurisdiction of the Delaware Courts, and appellate courts having jurisdiction of appeals from any of the foregoing courts, and agrees that all claims in respect of any such action shall be heard and determined in such Delaware Courts or, to the extent permitted by law, in such appellate courts;

(ii) consents that any such action may and shall be brought exclusively in such courts and waives any objection that it may now or hereafter have to the venue or jurisdiction of any such action in any such court or that such action was brought in an inconvenient forum, and agrees not to assert, plead or claim the same;

(iii) agrees that the final judgment of such court shall be enforceable in any court having jurisdiction over the relevant party or any of its assets;

(iv) agrees that service of process in any such action may be effected by mailing a copy of such process by registered or certified mail (or any substantially similar form of mail), postage prepaid, to such party at its address as provided herein; and

(v) agrees that nothing in this Agreement shall affect the right to effect service of process in any other manner permitted by the applicable rules of procedure.

14. Waiver of Jury Trial. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER. ANY OF THE PARTIES HERETO MAY FILE AN ORIGINAL COUNTERPART OR COPY OF THIS PARAGRAPH WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF EACH OF THE PARTIES HERETO TO THE WAIVER OF ITS RIGHT TO A TRIAL BY JURY.

15. Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties hereto; provided that no Stockholder shall be permitted to assign any of his, her or its rights or obligations pursuant to this Agreement without the prior written consent of the Company. Any attempted assignment by a Stockholder in violation of the foregoing shall be null and void *ab initio*.

16. Expenses. Other than as described herein, each of the parties hereto will bear their own expenses in connection with the negotiation, preparation and consummation of this Agreement.

17. Notices and Implementation. All notices or other communications required or permitted hereunder (including with respect to the distribution of the BTAI Shares to, and execution of the InveniAI Warrants by, the Schedule A Stockholders) shall be in writing and shall be deemed given or delivered when delivered personally or when sent by registered or certified mail, email or by private courier addressed as follows:

(a) If to the Company or to Vimal Mehta, to:

BioXcel Holdings, Inc.
c/o BioXcel Therapeutics, Inc.
555 Long Wharf Drive
New Haven, CT 06511
Attn: Vimal Mehta, Ph.D.
Email: [ ]

with a copy to (which shall not constitute notice):

Latham & Watkins LLP
200 Clarendon Street, 27th Floor
Boston, MA 02116
Attn: Peter N. Handrinos, Esq.
Email: [ ]

(b) If to InveniAI, to:

InveniAI, LLC
2614 Boston Post Road, Suite 33B
Guilford, CT 06437
Email: [ ]

with a copy to (which shall not constitute notice):

Garfunkel Wild, P.C.
350 Bedford Street
Suite 406A
Stamford, CT 06901
Attn: Merton G. Gollaher
Email: [ ]

(c) If to a Schedule A Stockholder, to:

80 West Meadow Road
Hamden, CT 06518
Attention: Vipin Agarwal
Email: [ ]

with a copy to (which shall not constitute notice):

Stradley Ronon Stevens & Young, LLP
100 Park Avenue, Suite 2000
New York, NY 10017
Attention: Frederic Krieger
Email: [ ]

(d) If to Krishnan Nandabalan:

2614 Boston Post Road, Suite 33B
Guilford, CT 06437
Email: [ ]

with a copy to (which shall not constitute notice):

Robert L. Blessey, Esq.
Gusrae Kaplan Nusbaum, PLLC
120 Wall Street
New York, NY 10005
Email: [ ]

(e) If to the Schedule B Stockholders:

BioXcel Holdings, Inc.
c/o BioXcel Therapeutics, Inc.
555 Long Wharf Drive
New Haven, CT 06511
Attn: Vimal Mehta, Ph.D.
Email: [ ]

and

Krishnan Nandabalan
2614 Boston Post Road, Suite 33B
Guilford, CT 06437
Email: [ ]

with copies to (which shall not constitute notice):

Latham & Watkins LLP
200 Clarendon Street, 27th Floor
Boston, MA 02116
Attn: Peter N. Handrinos, Esq.
Email: [ ]

and

Robert L. Blessey, Esq.
Gusrae Kaplan Nusbaum, PLLC
120 Wall Street
New York, NY 10005
Email: [ ]

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed as of the date first set forth above.

COMPANY:

BIOXCEL HOLDINGS, INC.

By: /s/ Krishnan Nandabalan
Name: Krishnan Nandabalan
Title: Chief Executive Officer

INVENIAI: (as to Sections 4(d), 7(d), and 17(b) only):

INVENIAI, LLC

By: /s/ Krishnan Nandabalan
Name: Krishnan Nandabalan
Title: Chief Executive Officer

/s/ Krishnan Nandabalan
Krishnan Nandabalan

/s/ Vimal Mehta
Vimal Mehta

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed as of the date first set forth above.

STOCKHOLDERS:

KRISHNAN NANDABALAN REVOCABLE TRUST OF 2018

By: /s/ Krishnan Nandabalan
Name: Krishnan Nandabalan
Title: Trustee

KRISHNAN NANDABALAN GRANTOR RETAINED ANNUITY TRUST OF 2021

By: /s/ Krishnan Nandabalan
Name: Krishnan Nandabalan
Title: Trustee

KRISHNAN NANDABALAN GRANTOR RETAINED ANNUITY TRUST OF 2022

By: /s/ Suganthi Balasubramanian
Name: Suganthi Balasubramanian
Title: Trustee

SUGANTHI BALASUBRAMANIAN REVOCABLE TRUST OF 2018

By: /s/ Suganthi Balasubramanian
Name: Suganthi Balasubramanian
Title: Trustee

/s/ Suganthi Balsubramanian
Suganthi Balasubramanian

SUNANDA FAMILY TRUST

By: /s/ Suganthi Balasubramanian
Name: Suganthi Balasubramanian
Title: Trustee

NANDABALAN FAMILY TRUST

By: /s/ Michael Aiello
Name: Michael Aiello
Title: Independent Trustee

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed as of the date first set forth above.

STOCKHOLDERS:

VIPIN AGARWAL IRREVOCABLE GIFTING TRUST DATED OCTOBER 6, 2021

By: /s/ Anesha Agarwal
Name: Anesha Agarwal
Title: Trustee

By: /s/ Akrati Agarwal
Name: Akrati Agarwal
Title: Trustee

/s/ Rashmi Agarwal
Rashmi Agarwal

/s/ Vipin Agarwal
Vipin Agarwal

/s/ Anesha Agarwal
Anesha Agarwal

/s/ Akarti Agarwal
Akarti Agarwal

JATIN PATEL IRREVOCABLE GIFTING TRUST DATED OCTOBER 6, 2021

By: /s/ Bina Patel
Name: Bina Patel
Title: Trustee

By: /s/ Krunal Patel
Name: Krunal Patel
Title: Trustee

/s/ Jatin Patel
Jatin Patel

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed as of the date first set forth above.

STOCKHOLDERS:

/s/ Diwakar Jain
Diwakar Jain

/s/ Anita Jain
Anita Jain

VYOMAN SOOD S CORP TRUST

By: /s/ Alka Sood
Name: Alka Sood
Title: Trustee

By: /s/ Marshal D. Gibson
Name: Marshal D. Gibson
Title: Trustee

SHREYA SOOD S CORP TRUST

By: /s/ Alka Sood
Name: Alka Sood
Title: Trustee

By: /s/ Marshal D. Gibson
Name: Marshal D. Gibson
Title: Trustee

TARUN K. GUPTA IRREVOCABLE GIFTING TRUST DATED OCTOBER 12, 2021

By: /s/ Indu R. Gupta
Name: Indu R. Gupta
Title: Trustee

/s/ Indu R. Gupta
Indu R. Gupta

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed as of the date first set forth above.

STOCKHOLDERS:

/s/ Rooma Mehta
Rooma Mehta

THE VIMAL D. MEHTA REVOCABLE TRUST OF 2018

By: /s/ Vimal Mehta
Name: Vimal Mehta
Title: Trustee

THE VIMAL MEHTA GRANTOR RETAINED ANNUITY TRUST OF 2021

By: /s/ Vimal Mehta
Name: Vimal Mehta
Title: Trustee

THE VIMAL MEHTA GRANTOR RETAINED ANNUITY TRUST OF 2022

By: /s/ Vimal Mehta
Name: Vimal Mehta
Title: Trustee

THE MEHTA FAMILY TRUST OF 2018

By: /s/ Rooma Mehta
Name: Rooma Mehta
Title: Investment Director

THE ROOMA FAMILY TRUST OF 2020

By: /s/ Vimal Mehta
Name: Vimal Mehta
Title: Investment Director

Schedule A

Stockholders	Pro Rata Percentage
Vipin Agarwal Irrevocable Gifting Trust Dated October 6, 2021	**40.62%**
Vipin Agarwal and Rashmi Agarwal	**4.30%**
Anesha Agarwal	**1.52%**
Akarti Agarwal	**1.52%**
Jatin Patel Irrevocable Gifting Trust Dated October 6, 2021	**19.84%**
Jatin Patel	**3.27%**
Anita Jain and Diwakar Jain	**7.66%**
Vyoman Sood S Corp Trust	**6.07%**
Shreya Sood S Corp Trust	**6.07%**
Tarun K. Gupta Irrevocable Gifting Trust Dated October 12, 2021	**8.17%**
Indu R. Gupta	**0.98%**

Schedule B

- Krishnan Nandabalan
- Vimal Mehta
- Krishnan Nandabalan Revocable Trust of 2018
- Krishnan Nandabalan Grantor Retained Annuity Trust of 2021
- Krishnan Nandabalan Grantor Retained Annuity Trust of 2022
- Suganthi Balasubramanian Revocable Trust of 2018
- Suganthi Balasubramanian
- Sunanda Family Trust
- Nandabalan Family Trust
- The Rooma Family Trust of 2020
- The Mehta Family Trust of 2018
- Rooma Mehta
- The Vimal Mehta Grantor Retained Annuity Trust of 2021
- The Vimal Mehta Revocable Trust of 2018
- The Vimal Mehta Grantor Retained Annuity Trust of 2022

Exhibit A

[Form of 10b5-1 Plan]

Exhibit 3

Execution Version

REPURCHASE AGREEMENT

THIS REPURCHASE AGREEMENT (this "**Agreement**") is made as of September 19, 2023, by and between BIOXCEL LLC, a Delaware limited liability company resulting from the conversion of BioXcel Corporation with its principal office at 2614 Boston Post Road, Suite 33B, Guilford, CT 06437 (the "**Company**"), VIPIN AGARWAL, an individual residing at 80 West Meadow Road, Hamden, CT 06518 ("**Vipin**"), and RASHMI AGARWAL, an individual residing at 80 West Meadow Road, Hamden, CT 06518 ("**Rashmi**" and, collectively with Vipin, "**Sellers**"), and INVENIAI LLC, a Delaware limited liability company ("**InveniAI**") (only as to Sections 2(a)(iii), 2(b)(i), 3(c) and 5).

Recitals

A. Sellers jointly own (i) a 0.71% Class B Common Interest Percentage in the Company (the "**Common Interest**"), and (ii) warrants to purchase the Class B Common Interest Percentage in the Company into which 120 shares of Common Stock of the Company's predecessor BioXcel Corporation were converted (the "**BioXcel Warrants**").

B. Immediately following the effectiveness hereof, BioXcel Holdings, Inc., a Delaware corporation and the majority owner of the Company ("**Holdings**"), InveniAI, Sellers and certain other stockholders of Holdings will enter into a Termination Agreement (the "**Termination Agreement**") pursuant to which, among other things, Sellers' outstanding shares of common stock of Holdings will be redeemed for shares of common stock of BioXcel Therapeutics, Inc., a Delaware corporation ("**BTAI**"), and warrants to purchase Class B Non-Voting Membership Interests of InveniAI.

C. As a condition to the Sellers' willingness to execute and deliver the Termination Agreement and to consummate the transactions contemplated thereby, Sellers desire to sell to the Company all of the Common Interest and amend the terms of the BioXcel Warrants, and the Company desires to so repurchase the Common Interest from Sellers and amend the BioXcel Warrants as an inducement to Sellers to enter into and perform their obligations under the Termination Agreement.

Terms of Agreement

Accordingly, the Company and Sellers, intending to be legally bound, agree as follows:

1. Repurchase. On the terms and subject to the conditions set forth in this Agreement, effective immediately prior to the termination, pursuant to the Termination Agreement, of the Stockholders Agreement of Holdings dated as of April 3, 2023 (the "**Effective Time**"), the Company hereby purchases and accepts from Sellers, and Sellers hereby sell, transfer, convey and deliver to the Company, the Common Interest, free and clear of all liens.

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2. Consideration.

(a) In consideration of the transactions contemplated hereby and in consideration of Sellers' entry into and performance of their obligations under the Termination Agreement:

(i) as soon as commercially reasonable following November 15, 2023 in compliance with applicable securities laws, the Company shall transfer to Sellers 42,976 shares of common stock of BTAI then held by the Company pursuant to the Registration Statement on Form S-3 (333-240118) (the "**BTAI Shares**"); *provided*, that in the event of any change in the number of BTAI Shares outstanding as a result of a stock split, pro rata share dividend or any similar change in the number of shares outstanding (an "**Adjustment Event**"), the number of BTAI Shares transferred to Sellers will be adjusted such that they represent the same percentage of shares as immediately prior to the record date associated with such Adjustment Event;

(ii) as soon as commercially reasonable following the transfer of the BTAI Shares pursuant to Section 2(a)(i) hereof, the Company shall deliver to Sellers an amended and restated BioXcel Warrant dated effective as of such time and otherwise in substantially the form of Exhibit A hereto;

(iii) as soon as commercially reasonable following the Effective Time and the receipt by InveniAI of a 409A (or similar) valuation report (and in no event more than six months after the Effective Date), InveniAI shall issue to Sellers (and the Company shall use commercially reasonable efforts to cause InveniAI to issue to Sellers) warrants to purchase Class B Non-Voting Membership Interests of InveniAI equal to 0.54% of InveniAI at the Effective Time (whether calculated in units or percentages), having a term of 10 years and an exercise price equal to the fair market value of such Class B Non-Voting Membership Interests on or about the date of issuance of such warrants (the "**InveniAI Warrants**"); InveniAI and Vipin Agarwal will cooperate to establish mutually agreeable provisions of such warrants that are commercially reasonable, including but not limited to with respect to notice, forfeiture, and exercise timing and mechanics; and

(iv) in the event the Company makes tax distributions in respect of tax liabilities incurred by its members (as reflected in allocable income on such members' Schedules K-1) during its tax year 2022, tax year 2023 or tax year 2024, the Sellers shall participate with respect to the applicable portion of such tax year and as reflected on their Schedule K-1 from such tax year on corresponding terms, it being understood that the Company expects to make such tax distributions with respect to its tax year 2022 no later than September 30, 2023.

(b) Notwithstanding anything to the contrary in this Section 2, during the one year period following the Effective Time:

(i) If the Company agrees to repurchase any securities issued by the Company ("**Subject Securities**") from any holder of securities of the Company other than Holdings or a holder of securities issued in connection with an equity incentive plan (each, a "**Minority Holder**") for consideration that exceeds, on a per unit or per percentage basis, the number of BTAI Shares to be issued to Sellers under this Section 2 for the Common Interest, and/or if in connection with any such repurchase of Subject Securities InveniAI agrees to issue to a Minority Holder a number of InveniAI Warrants that exceeds, on a per unit or per percentage basis, the number of InveniAI Warrants to be issued to Sellers hereunder for the Common Interest, then the Company and/or InveniAI shall, contemporaneously with its offer to purchase the Subject Securities from such Minority Holder, issue to Sellers a number of additional BTAI Shares and/or InveniAI Warrants, as applicable, such that the consideration payable hereunder for the Common Interest equals the consideration offered to the Minority Holder for the Subject Securities on a per unit or per percentage basis; and

(ii) If the Company offers to repurchase Subject Securities from a Minority Holder for consideration that consists of or includes cash or assets other than BTAI Shares and/or InveniAI Warrants, then the Company shall, contemporaneously with its offer to purchase the Subject Securities from such Minority Holder, grant Sellers the option (which option shall be exercisable by Sellers for a period of no less than ten business days) to exchange the BTAI Shares and InveniAI Warrants issued to Sellers as consideration under this Section 2 for consideration that equals the cash or other assets offered as consideration to such Minority Holder for the Subject Securities, determined on a per unit or per percentage basis.

3. Representations and Warranties.

(a) Representations and Warranties of Sellers. Sellers hereby jointly and severally represent and warrant to the Company as follows:

(i) Sellers are the owners of record of all right, title and interest in and to the Common Interest and the BioXcel Warrants.

(ii) Sellers have the power and authority to execute and deliver this Agreement and to consummate the transactions contemplated hereby.

(iii) This Agreement and all other instruments or documents executed by Sellers in connection herewith (A) have been duly executed by Sellers and constitute the legal, valid and binding obligations of Sellers, enforceable in accordance with their respective terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors' rights generally and by general principles of equity, and (B) do not violate or otherwise conflict with any injunction, judgment, order, decree, ruling or charge by any governmental authority that is binding on either Seller.

(iv) There is no agreement, commitment or understanding of any nature whatsoever to which either Seller is a party that directly or indirectly provides any person other than Sellers with the right to vote or control the disposition of the Common Interest or the BioXcel Warrants.

(v) Sellers have, independently and without reliance on any valuation or projections by the Company or its management and based on such documents and information as they have deemed appropriate, made their own appraisal of the financial condition and affairs of the Company, BTAI and InveniAI and have made their own decision to enter into this Agreement.

(vi) The securities to be received hereunder will be acquired for Sellers' own account, not as nominee or agent, and not with a view to the resale or distribution of any part thereof in violation of the Securities Act of 1933, as amended, and the regulations thereunder (collectively, the "**1933 Act**"), and Sellers have no present intention of selling, granting any participation in, or otherwise distributing the same in violation of the 1933 Act.

(vii) Sellers can bear the economic risk and complete loss of their investment in the BTAI Shares and the InveniAI Warrants and have such knowledge and experience in financial or business matters that they are capable of evaluating the merits and risks of the investment contemplated hereby.

(viii) Sellers understand that the InveniAI Warrants and certain of the BTAI Shares received pursuant to this Agreement may be characterized as "restricted securities" under the U.S. federal securities laws inasmuch as they are being acquired in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the 1933 Act only in certain limited circumstances.

(ix) Sellers understand that the InveniAI Warrants and certain of the BTAI Shares received hereunder may bear a restrictive legend limiting their resale without registration under the 1933 Act or only in certain limited circumstances.

(x) Sellers are (a) "accredited investors" within the meaning of Rule 501(a) under the 1933 Act and (b) sophisticated investors with sufficient knowledge and experience in investing in private placement transactions to properly evaluate the risks and merits of their purchase of such securities.

(xi) Sellers did not learn of the investment in these securities as a result of any general solicitation or general advertising.

(xii) Sellers understand that no United States federal or state agency, or similar agency of any other country, has reviewed, approved, passed upon, or made any recommendation or endorsement of the Company or the purchase of securities hereunder.

(xiii) Sellers have not taken any of the actions set forth in, and are not subject to, the disqualification provisions of Rule 506(d)(1) under the 1933 Act.

(xiv) Sellers understand and acknowledge that the Company is in possession of information about BioXcel Therapeutics, Inc., which may include material non-public information that may or may not be material or superior to information available to the Sellers. Sellers hereby waive any claim, or potential claim, they have or may have against the Company and any its affiliates relating to the Company's possession of such material non-public information.

(b) Representations and Warranties of the Company. The Company hereby represents and warrants to Sellers as follows:

(i) The Company is the owner of record of all right, title and interest in and to the BTAI Shares, free and clear of liens, and the BTAI Shares are fully-paid and non-assessable shares of common stock of BTAI.

(ii) There is no agreement, commitment or understanding of any nature whatsoever to which the Company is a party that directly or indirectly provides any person with the right to vote or control the disposition of the BTAI Shares, other than the Company.

(iii) The Company is a limited liability company, duly organized, validly existing, and in good standing under the laws of the State of Delaware, and BTAI is a corporation, duly incorporated, validly existing, and in good standing under the laws of the State of Delaware.

(iv) The Company has received all necessary approvals from its members and managers to execute and deliver this Agreement and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement by the Company, and the performance of the Company's obligations hereunder, do not violate or otherwise conflict with the organizational documents of the Company.

(v) The person signing this Agreement on behalf of the Company has all requisite power and authority to execute and deliver this Agreement in the name and on behalf of the Company.

(vi) This Agreement and all other instruments or documents executed by the Company in connection herewith (A) have been duly executed by the Company, and constitute the legal, valid and binding obligation of the Company, enforceable in accordance with their respective terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors' rights generally and by general principles of equity, and (B) do not violate or otherwise conflict with any injunction, judgment, order, decree, ruling or charge by any governmental authority that is binding on the Company.

(vii) BioXcel LLC owns 8,546,750 BTAI Shares.

(viii) Sellers own 0.71% of the Company's common interests on a fully diluted basis.

(c) Representations and Warranties of InveniAI. InveniAI hereby represents and warrants to Sellers as follows:

(i) The current ownership of BioXcel LLC in InveniAI is 76.190% on a fully-diluted basis.

(ii) The Class B Non-Voting Membership Interests of InveniAI issuable upon exercise of the InveniAI Warrants shall have the same pro rata economic rights as the interests of InveniAI held by BioXcel LLC (which, for the avoidance of doubt, excludes rights comparable to BioXcel LLC's rights as InveniAI's majority owner and parent company including without limitation certain information rights, rights to certification of compliance with certain restrictive covenants, approval of material transactions, securities issuances, certain indebtedness and creation of certain direct or indirect subsidiaries, assurances of certain tax distributions, and rights to future equity issuances but not including any preference as to distributions (whether interim or liquidating)).

4. Further Assurances. Each party hereby agrees, following the Effective Time, without further consideration, to execute and deliver such other agreements, instruments and documents and to take such other actions as the other party or its counsel may reasonably request in order to carry out the provisions hereof and the transactions contemplated hereby, including (a) to put the Company

in possession of, and to vest in the Company, good and valid title to the Common Interest and (b) to put Sellers in possession of, and to vest in Sellers, good and valid title to the BTAI Shares and the InveniAI Warrants, in each case in accordance with this Agreement.

5. Miscellaneous.

(a) Survival of Representations and Covenants. All of the representations and warranties in this Agreement and in any instruments executed and delivered in fulfillment of the requirements of this Agreement shall survive the consummation of the transactions contemplated hereby. All covenants which by their terms are required to be performed following the Effective Time shall survive until performed in accordance with their terms.

(b) Interpretation. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of the provisions of this Agreement.

(c) Expenses. The parties shall bear their respective expenses incurred in connection with the preparation, execution and performance of this Agreement and the transactions contemplated hereby, including, without limitation, all fees and expenses of agents, representatives, counsel and accountants.

(d) Notices. All notices or other communications required or permitted hereunder shall be in writing and shall be deemed given or delivered when delivered personally or when sent by registered or certified mail, email or by private courier addressed as follows:

(i) If to the Company, to:

BioXcel LLC
c/o BioXcel Therapeutics, Inc.
555 Long Wharf Drive
New Haven, CT 06511
Attn: Vimal Mehta, Ph.D.
Email: [ ]

With copies (which shall not constitute notice) to:

Latham & Watkins LLP
200 Clarendon Street, 27th Floor
Boston, MA 02116
Attn: Peter N. Handrinos, Esq.
Email: [ ]

(ii) If to Sellers, to:

Vipin and Rashmi Agarwal
80 West Meadow Road
Hamden, CT 06518
Email: [ ]

With a copy (which shall not constitute notice) to:

Frederic M. Krieger, Esq.
Stradley Ronon Stevens & Young, LLP
100 Park Avenue, Suite 2000
New York, NY 10017
Email: [ ]

(iii) If to InveniAI, to:

InveniAI, LLC
2614 Boston Post Road, Suite 33B
Guilford, CT 06437
Email: [ ]

With a copy (which shall not constitute notice) to:

Garfunkel Wild, P.C.
350 Bedford Street
Suite 406A
Stamford, CT 06901
Attn: Merton G. Gollaher
Email: [ ]

Failure or refusal to accept certified, registered, or express mail will constitute delivery thereof. Any such notice shall be deemed given upon receipt. Any party may by notice given in accordance with this Section to the other parties designate another address for receipt of notices hereunder.

(e) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns as well as the heirs, executors, administrators and personal representatives of Sellers.

(f) Entire Agreement, Amendment; Waivers. This Agreement constitutes the entire agreement between the Company and Sellers with respect to the transactions contemplated hereby, supersedes all prior negotiations, communications, discussions and correspondence concerning the subject matter hereof, and may be amended or modified only with the written consent of the parties. A failure of any party hereto to insist on strict compliance with any provision of this Agreement shall not be deemed a waiver of such provision or any other provision hereof.

(g) Severability. If any provision of this Agreement shall be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity without invalidating the remainder of such provision or any remaining provisions of this Agreement; *provided*, that the repurchase of the Common Interest and the BioXcel Warrants in exchange for the BTAI Shares and the InveniAI Warrants are of the essence of this Agreement and shall not be severable.

(h) Attorneys' Fees. In the event of litigation relating to the subject matter of this Agreement, the prevailing party shall be entitled to receive from the other party its reasonable attorneys' fees and costs.

(i) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to its principles of conflicts of laws.

(j) **Waiver of Jury Trial. EACH PARTY HEREBY AGREES TO WAIVE TRIAL BY JURY IN ANY ACTION ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT.**

(k) Counterparts. This Agreement may be executed in separate counterparts, each of which, when so executed, shall be deemed to be an original and all of which, when taken together, shall constitute but one and the same agreement.

(l) Variations in Pronouns. All pronouns and any variations thereof used herein refer to the masculine, feminine or neuter, singular or plural, as the context may require.

(m) Interpretation. All references herein to Sections, subsections and clauses shall be deemed references to such parts of this Agreement, unless the context shall otherwise require.

(n) Headings. The headings in this Agreement are for reference only and shall not affect the interpretation of this Agreement.

[Remainder of Page Intentionally Blank; Signature Page Follows]

Signature Page

IN WITNESS WHEREOF, the undersigned have executed and delivered this Repurchase Agreement as of the date first written above.

BIOXCEL LLC

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

/s/ Vipin Agarwal
Vipin Agarwal

/s/ Rashmi Agarwal
Rashmi Agarwal

The undersigned hereby executes and delivers this Repurchase Agreement solely with respect to Sections 2(a)(iii), 2(b)(i), 3(c) and 5:

INVENIAI, LLC

By: /s/ Krishnan Nandabalan
Name: Krishnan Nandabalan
Title: Chief Executive Officer

EXHIBIT A
Form of Amended and Restated BioXcel Warrant

THIS WARRANT AND ANY SECURITIES ACQUIRED UPON THE EXERCISE OF THIS WARRANT HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "SECURITIES ACT") AND HAVE BEEN OR WILL BE ISSUED IN RELIANCE ON AN EXEMPTION FROM REGISTRATION PROVIDED FROM REGULATIONS UNDER THE SECURITIES ACT. THIS WARRANT AND ANY SECURITIES ACQUIRED UPON THE EXERCISE OF THIS WARRANT 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 LLC 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.

Warrant No. 2016-l

Originally Issued as of February 15, 2016, and amended as of May 5, 2021
Amended and Restated as of _____, 2023

BIOXCEL LLC

AMENDED AND RESTATED COMMON INTEREST WARRANT

This warrant ("**Warrant**") certifies that for value received Vipin Agarwal and Rashmi Agarwal ("**Holder**") are entitled, jointly and not severally, subject to the terms and conditions hereinafter set forth, to subscribe for and purchase from BioXcel LLC, a Delaware limited liability company resulting from the conversion of BioXcel Corporation with its principal office at 2614 Boston Post Road, Suite 33B, Guilford, CT 06437 06405 ("**Grantor**" or "**Company**"), 120 common interests in Grantor ("**Common Interests**"), on or before the Expiration Date (as hereinafter defined), at an exercise price per Common Interest equal to $1,709.88 (the "**Exercise Price**"). Grantor represents and warrants that, upon the conversion of BioXcel Corporation into Grantor, each issued and outstanding share of common stock, $0.01 par value per share, of BioXcel Corporation was converted into one common interest in Grantor.

1. Exercise of Warrant.

To exercise this Warrant, Holder shall notify Grantor by delivering the Warrant Exercise Form attached hereto as Exhibit A to Grantor's principal office by hand or by sending such Warrant Exercise Form to Grantor's principal office by registered or certified mail, return receipt requested, or by an overnight delivery service (such as Express Mail, Federal Express, UPS or equivalent service). The Warrant Exercise Form shall be accompanied by (i) this Warrant, and (ii) payment in cash or by check acceptable to Grantor of the Exercise Price for each Common Interest for which this Warrant is being exercised. This Warrant shall be exercisable in whole or in part, and from time to time, prior to August 31, 2026 (the "**Expiration Date**").

As soon as commercially reasonable and in compliance with applicable securities laws, following Holder's exercise of this Warrant Grantor shall redeem from Holder all of the Common Interests purchased by Holder hereunder (the "**Warrant Interests**") in exchange for shares of common stock of BioXcel Therapeutics, Inc., a Delaware corporation, held by Grantor ("**BTAI Shares**"), with each Warrant Interest exchangeable for 149.22 BTAI Shares (the "**BTAI Share Conversion**").

If at any time while this Warrant is outstanding the Company has sold a number of BTAI Shares such that the Company no longer holds at least three times as many BTAI Shares as necessary to provide for the full BTAI Share Conversion (a "**Selldown Transaction**"), then, upon any subsequent exercise of this Warrant, at the Company's sole discretion, the Company shall have the option of delivering, in lieu of the number of BTAI Shares that would have been delivered pursuant to such exercise immediately prior to the occurrence of such Selldown Transaction (the "**Alternative Consideration Shares**"), the consideration that the Company received as a result of such Selldown Transaction in exchange for such number of Alternative Consideration Shares.

2. Cashless Exercise.

Notwithstanding any provisions herein to the contrary, in lieu of exercising this Warrant for cash, Holder may elect to receive shares equal to the value (as determined below) of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of Grantor together with the properly endorsed Warrant Exercise Form and notice of such election, in which event the Company shall issue to Holder a number of Common Interests computed using the following formula:

$$X = \underline{Y(A-B)}$$

A

Where:

X =	the number of Common Interests to be issued to Holder
Y =	the number of Common Interests purchasable under this Warrant or, if only a portion of this Warrant is being exercised, the portion of this Warrant being exercised (at the date of such calculation)
A =	the fair market value of one Common Interest (at the date of such calculation)
B =	Exercise Price

For purposes of the above calculation, fair market value of one Common Interest shall be determined in good faith by Grantor's Board of Managers; *provided*, that where there exists a public market for the Common Interests at the time of such exercise, the fair market value per share shall be the average of the closing bid and asked prices of the Common Interests quoted in the Over The Counter Market Summary or the last reported sale price of the Common Interests or the closing price quoted on any exchange on which the Common Interests are listed, whichever is applicable, as published in the *Wall Street Journal,* Eastern Edition, for the five (5) trading days prior to the date of determination of fair market value.

3. Loss, Theft, Destruction or Mutilation of Warrant.

Upon receipt by Grantor of evidence satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and (in the case of loss, theft or destruction) receipt of reasonably satisfactory indemnification, and (in the case of mutilation) upon surrender and cancellation of this Warrant, Grantor, at Holder's cost, shall execute and deliver a new Warrant of like tenor and date and any such lost, stolen, destroyed or mutilated Warrant shall thereupon become void.

4. Certain Agreements of Grantor.

Grantor hereby covenants and agrees as follows:

(a) Interests to be Fully Paid. All Warrant Interests shall, upon issuance in accordance with the terms of this Warrant, be validly issued, fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issue thereof.

(b) Reservation of Shares. Upon the date of any exercise of this Warrant by Holder, Grantor shall ensure that, within ten (10) business days from such date, the number of Warrant Interests to be issued pursuant to such exercise are available for issuance.

(c) Certain Actions Prohibited. Grantor shall not, by amendment of its charter or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed by it hereunder, but shall at all times in good faith assist in the carrying out of all the provisions of this Warrant and in the taking of all such action as may reasonably be requested by Holder in order to protect the exercise privilege of Holder against impairment, consistent with the tenor and purpose of this Warrant. Without limiting the generality of the foregoing, Grantor (i) shall not increase the par value of any Common Interests receivable upon the exercise of this Warrant above the Exercise Price, (ii) shall take all such actions as may be necessary or appropriate in order that Grantor may validly and legally issue fully paid and nonassessable Common Interests upon the exercise of this Warrant and (iii) shall not close its membership books or records in any manner which interferes with the timely exercise of this Warrant.

5. Assignability of this Warrant.

Without the express written consent of Grantor, in its absolute discretion, Holder may not give, grant, sell, exchange, transfer legal title to, pledge, assign or otherwise encumber or dispose of this Warrant or, until such time as the Common Interests are registered under the Securities Act of 1933, as amended (the **"Securities Act**"), the Warrant Interests, or any interest herein or therein, and this Warrant herein granted shall be exercisable only by Holder. Grantor may deem and treat the person in whose name this Warrant is registered as the holder and owner hereof (notwithstanding any notations of ownership or writing hereon made by anyone other than Grantor) for all purposes and shall not be affected by any notice to the contrary until presentation of this Warrant for registration of transfer as provided in this Section 5.

6. Adjustments in Common Interests.

If any change is made to the Common Interests or any other membership interests in the Grantor by reason of any unit split, reverse split, unit distribution, recapitalization, reorganization, combination of units, exchange of units or other change affecting the Grantor's outstanding membership interests as a class without the Grantor's receipt of consideration, appropriate adjustments may be made to: (a) the maximum number and/or class of membership interests issuable for which this Warrant is exercisable, or (b) the number and/or class of interests and the exercise price per interest in effect under this Warrant, in the case of either (a) or (b) in order to prevent the dilution or enlargement of benefits thereunder.

7. Anti-Dilution Protection.

(a) In the event the Company shall at any time after the date of this Warrant and prior to the date of exercise of this warrant issue Additional Common Interests, without consideration or for a consideration per share less than the Exercise Price in effect immediately prior to such issue, then the Exercise Price shall be reduced, concurrently with such issue, to the consideration per share received by the Company for such issue or deemed issue of the Additional Common Interests; *provided* that if such issuance or deemed issuance was without consideration, then the Company shall be deemed to have received an aggregate of $1.00 of consideration for all such Additional Common Interests issued or deemed to be issued.

(b) For purposes of this Section 7, the consideration received by the Company for the issue of any Additional Common Interests shall be computed as follows: (x) for cash and property, such consideration shall: (i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Company, including amounts paid or payable for accrued interest; (ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Managers of the Company; and (iii) in the event Additional Common Interests are issued together with other shares or securities or other assets of the Company for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Managers of the Company; and (y) for options and convertible securities, the consideration per share received by the Company for Additional Common Interests deemed to have been issued shall be determined by dividing: (i) the total amount, if any, received or receivable by the Company as consideration for the issue of such options or convertible securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Company upon the exercise of such options or the conversion or exchange of such convertible securities, or in the case of options for convertible securities, the exercise of such options for convertible securities and the conversion or exchange of such convertible securities, by (ii) the maximum number of Common Interests (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such options or the conversion or exchange of such convertible securities, or in the case of options for convertible securities, the exercise of such options for convertible securities and the conversion or exchange of such convertible securities.

(c) **"Additional Common Interests"** shall mean all Common Interests issued or deemed issued by the Company after the date of this Warrant and prior to exercise of this Warrant, other than (1) the following Common Interests and (2) Common Interests deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, **"Exempted Securities"):** (i) Common Interests, options or convertible securities issued as a dividend or distribution on securities of the Company; (ii) Common Interests, options or convertible securities issued by reason of a dividend, unit split, split-up or other distribution on Common Interests; (iii) Common Interests or options issued to employees or directors of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Managers of the Company; (iv) Common Interests or convertible securities actually issued upon the exercise of options or Common Interests actually issued upon the conversion or exchange of convertible securities, in each case provided such issuance is pursuant to the terms of such option or convertible security; Common Interests, Options or convertible securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Managers of the

Company; (v) Common Interests, options or convertible securities issued to suppliers or third party service providers in connection with the provision of goods or services pursuant to transactions approved by the Board of Managers of the Company; (vi) Common Interests, options or convertible securities issued pursuant to the acquisition of another corporation or business by the Company by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided that such issuances are approved by the Board of Managers of the Company; or (vii) Common Interests, options or convertible securities issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the Board of Managers of the Company.

(d) No adjustment in the Exercise Price shall be made as the result of the issuance or deemed issuance of Additional Common Interests if the Company receives written notice from the Holder agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Common Interests.

8. No Rights as a Member.

Holder shall have no rights as a member of Grantor in respect of Common Interests as to which this Warrant granted hereunder shall not have been exercised and payment shall not have been made as herein provided.

9. Withholding.

Holder agrees to cooperate with Grantor to take all steps necessary or appropriate for any withholding of taxes by Grantor under law or regulation in connection therewith. In the event Holder does not make a required withholding payment at the time of exercise, Grantor may make such provisions and take such steps as it, in its sole discretion, may deem necessary or appropriate for the withholding of any taxes that Grantor is required by any law or regulation of any governmental authority, whether federal, state or local, domestic or foreign, to withhold in connection with the exercise of this Warrant, including, but not limited to, (i) the withholding of payment of all or any portion of this Warrant until Holder reimburses Grantor for the amount Grantor is required to withhold with respect to such taxes, (ii) the cancelling of any number of Common Interests issuable upon exercise of this Warrant in an amount sufficient to reimburse Grantor for the amount it is required to so withhold, (iii) the selling of any property contingently credited by Grantor for the purpose of exercising this Warrant, in order to withhold or reimburse Grantor for the amount it is required to so withhold, and/or (iv) withholding any amount payable to Holder by Grantor or any subsidiary thereof.

10. Miscellaneous.

(a) Entire Agreement. This Warrant (including the Exhibit hereto) sets forth the complete agreement between the parties concerning the subject matter hereof, superseding all prior agreements, negotiations and understandings.

(b) Governing Law. This Warrant and any controversy arising out of or relating to this Warrant shall be governed by and construed in accordance with the laws of the State of Connecticut, without regard to its conflicts of laws principles.

(c) Descriptive Headings. Headings have been included herein for convenience of reference only, and shall not be deemed a part of the Warrant.

(d) Amendments. This Warrant may be amended or supplemented only by an instrument in writing signed by the parties hereto.

(e) Counterparts: Electronic Delivery. This Warrant may be executed in two (2) counterparts, each of which shall be deemed an original, but both of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

(f) Successors and Assigns. This Warrant shall be binding on and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

(g) Dispute Resolution. The parties (i) hereby irrevocably and unconditionally submit to the jurisdiction of the federal and state courts located within the geographic boundaries of Connecticut for the purpose of any suit, action or other proceeding arising out of or based upon this Warrant; (ii) agree not to commence any suit, action or other proceeding arising out of or based upon this Warrant except in the federal and state courts located within the geographic boundaries of Connecticut; and (iii) hereby waive, and agree not to assert, by way of motion, as a defense or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Warrant or the subject matter hereof may not be enforced in or by such court.

(h) WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS WARRANT, THE WARRANT INTERESTS OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATIER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO, AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

IN WITNESS WHEREOF, the parties hereto have executed this Amended and Restated Warrant as of the day and year first above written.

GRANTOR

BioXcel LLC (f/k/a BioXcel Corporation)

By: _____
Vimal Mehta
Chief Executive Officer

Agreed and Accepted:

_____
Vipin Agarwal

_____
Rashmi Agarwal

Exhibit A

WARRANT EXERCISE FORM

TO: **BIOXCEL LLC**

c/o BioXcel Therapeutics, Inc.
555 Long Wharf Drive
New Haven, CT 06511
Attn: Vimal Mehta, Ph.D.
Email: [ ]

(1) The undersigned hereby elect to purchase _____ Common Interests of BioXcel LLC, a Delaware limited liability company (the "**Company**"), pursuant to the terms of the attached Amended and Restated Common Interest Warrant No. 2016-1 of the Company dated as of _____ (the "**Warrant**"), and tender herewith payment of the Exercise Price in full. Capitalized terms used in this Warrant Exercise Form and not otherwise defined herein have the meanings ascribed to them in the Warrant.

(2) Payment of the Exercise Price shall take the form of (check applicable box):

☐ lawful money of the United States; or

☐ the cancellation of such number of Common Interests as is necessary, in accordance with the formula set forth in Section 2 of the Warrant, to exercise the Warrant with respect to the maximum number of Common Interests purchasable pursuant to the cashless exercise procedure set forth in Section 2 of the Warrant.

(3) Please issue the Warrant Interests in the name of the undersigned or in such other name as is specified here: _____.

(4) As soon as commercially reasonable and in compliance with applicable securities laws, following the undersigned's exercise of this Warrant, the Company shall redeem from the undersigned all of the Warrant Interests in exchange for shares of common stock of BioXcel Therapeutics, Inc., a Delaware corporation, held by the Company ("**BTAI Shares**"), with each Warrant Interest exchangeable for 149.22 BTAI Shares; *provided*, that if the Company has completed a Selldown Transaction, then the Company shall have the option of delivering Alternative Consideration Shares as provided in Section 1 of the Warrant.

(5) The Company shall, to the extent commercially reasonable and in compliance with applicable securities laws, deliver the BTAI Shares or Alternative Consideration Shares to the undersigned, or for their benefit, as follows:

☐ Check here if requesting delivery as a certificate to the following name and address:

Name: _____

Address: _____

_____

☐ Check here if requesting delivery to the following custodial account:

DTC Participant: _____

DTC Number: _____

Account Number: _____

(6) The undersigned are "accredited investors" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

IN WITNESS WHEREOF, the undersigned have executed and delivered this Warrant Exercise Form as of _____.

Vipin Agarwal

Rashmi Agarwal

Exhibit 4

Issuer Name: **BioXcel Therapeutics, Inc.**
Client Name: **Vimal Mehta**
Symbol: **BTAI**

Rule 10b5-1 Sales Plan, Client Representations, and Sales Instructions

I, Vimal Mehta, as of the date below, establish this Sales Plan ("Plan") in order to sell shares of the common stock ("Shares") of BioXcel Therapeutics, Inc. ("Issuer") pursuant to the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, as amended ("Exchange Act"). I request that Merrill Lynch, Pierce, Fenner & Smith Incorporated ("Merrill Lynch") execute the Plan as follows:

1. Sales Instructions for Sales/Exercise and Sale of Employee Stock Options

1.1 For securities other than stock options, including, but not limited to, long shares, restricted stock awards, restricted stock unit awards and performance share awards, you are authorized to execute transactions in accordance with the attached SEC Rule 10b5-1 Sales Instruction and Notice Provision – Annex ("Sales Instruction") with respect to the security type "Shares."

1.2 For employee stock options, you are authorized to exercise my options and sell the underlying Shares in accordance with the Sales Instruction with respect to the security type "ESOP."

For purposes of this Section 1.2:

1. Merrill Lynch will not exercise any stock option unless its exercise price is less than the market price of the underlying Shares.

2. To the extent that the exercise price and any withholding tax relating to the exercise of a stock option and sale of the underlying Shares under this Plan are to be paid from the proceeds of such exercise and sale, Merrill Lynch will deduct from the proceeds of each stock option exercised and the underlying Shares sold the sum of the exercise price and any withholding tax. The resulting amount will be then remitted to the Issuer.

3. After remitting payment to the Issuer for the applicable exercise price and withholding tax pursuant to 1.2.2, supra, any commissions and/or fees due and payable to Merrill Lynch shall be deducted from the proceeds of such exercise and sale and paid to Merrill Lynch.

4. Check which of the following apply:

☒ The Issuer of the Shares has executed a servicing agreement with Merrill Lynch for stock option services for the Issuer and its optionees.

☐ The Issuer of the Shares has not executed a servicing agreement with Merrill Lynch for stock option services for the Issuer and its optionees and therefore I hereby agree to and authorize the following:

Issuer Name: **BioXcel Therapeutics, Inc.**
Client Name: **Vimal Mehta**

Symbol: **BTAI**

In connection with the exercise of my employee stock options under the Plan I authorize and instruct the Issuer to register or cause its agent(s) to register, the Shares to be issued upon the exercise of my stock option(s) in the name of Merrill Lynch (or its designated nominee), which is my agent and nominee (or in the event that is not permissible, in my name).

I also authorize and instruct the Issuer to deliver, or cause its agent(s) to deliver within standard settlement period, the Shares issued pursuant to the stock option exercise to Merrill Lynch in exchange for funds from Merrill Lynch representing the exercise price (plus any applicable taxes).

I cannot revoke or rescind this authorization and instruction under any circumstance while the Plan is in effect. I hereby grant a security interest to Merrill Lynch in the Shares to be issued pursuant to the exercise of my employee stock option(s). This security interest will not terminate even if the securities are delivered to me contrary to these instructions.

1.3 If the Shares to be sold under this Plan will be issued pursuant to the vesting and/or exercise of an equity award such as the vesting of restricted stock or restricted stock units or the exercise of a stock option, I agree that I am responsible for any and all dividends, rights or payments of any kind that are or may become payable to any purchaser of the Shares sold under this Plan prior to the registration of the Shares in the name of Merrill Lynch or its nominee and, if I am holding all or some of these Shares, I agree that I shall not be entitled to such dividends, rights or payments prior to the issuance of the Shares. I agree to pay or deliver to Merrill Lynch upon demand, any and all funds, securities, dividends or distributions due to it, if, for any reason, the Shares to be issued pursuant to such vesting or exercise are not promptly delivered to Merrill Lynch.

2. Execution, Average Pricing and Pro Rata Allocation of Sales

I agree and acknowledge that:

2.1 If my order to sell Shares pursuant to the Plan, whether market or limit, is handled by a Merrill Lynch trading desk, my order shall be handled as "not held." A "not held" or "working order" permits a Merrill Lynch trader to use reasonable brokerage judgment, exercising price and time discretion, as to when to execute the order. This provision shall only apply to orders handled by a Merrill Lynch trading desk.

2.2 Merrill Lynch may execute my order: (a) in a single transaction or multiple transactions during the course of the trading day, or (b) it may aggregate my order with other orders for other sellers of the Issuer's securities that may or may not have been accepted pursuant to a Rule 10b5-1 sales plan, execute them as a block or in multiple smaller transactions, and allocate an average price to each seller.

Issuer Name: **BioXcel Therapeutics, Inc.**
Client Name: **Vimal Mehta**
Symbol: **BTAI**

2.3 When orders are aggregated, Merrill Lynch shall allocate the proceeds of shares sold pro rata among the sellers, based on the ratio of (x) the shares to be sold and (y) the sum of the proceeds of all shares sold, and Merrill Lynch will provide each seller an "average price confirmation" that identifies the amount of securities sold for the applicable seller together with an average price for sales.

3. Stock Splits/Reincorporation/Reorganizations

3.1 In the event of a stock split or reverse stock split, the quantity and price at which the Shares are to be sold will be adjusted proportionately.

3.2 In the event of a stock dividend or spin-off, the quantity and price at which the Shares are to be sold will be adjusted as instructed by the Issuer. Any adjustment shall only become effective upon receipt by Merrill Lynch of written notice from Issuer as to

the occurrence of the dividend or spin-off, as well as specific instructions as to the adjustment to the quantity and price at which Shares are to be sold.

3.3 In the event of a reincorporation or other corporate reorganization resulting in an automatic share-for-share exchange of new shares of the Issuer for the Shares subject to the Plan, then the new shares will automatically replace the Shares originally specified in the Plan.

4. Account Credit

In the event any scheduled sale of Shares or exercise of stock options and sale of the underlying Shares is not executed as provided for in Section 1 (or Section 7, if applicable) of the Plan, upon Merrill Lynch's knowledge of such event, Merrill Lynch shall exercise stock options (if applicable) and sell Shares that should have been sold as soon as reasonably practicable, and will credit my account as if such sale had been executed as instructed in Section 1 (or Section 7, if applicable).

5. Compliance with Rule 144 and Rule 145

5.1 I understand and agree that, if I am an affiliate or control person for purposes of Rule 144 under the Securities Act of 1933, as amended ("Securities Act"), or if the Shares subject to the Plan are restricted securities subject to limitations under Rule 144 or eligible for resale under Rule 145, then all sales of Shares under the Plan will be made in accordance with the applicable provisions of Rule 144.

5.2 I request and authorize Merrill Lynch to complete and file on my behalf any Forms 144 (pre-signed by me) necessary to effect sales under the Plan.

5.3 If appropriate, I understand and agree that, upon my prompt signature and delivery to Merrill Lynch of Form 144, Merrill Lynch will either: (a) make one Form 144 filing at the beginning of each three-month period commencing with the date of the first sale made in connection with the Plan or (b) file Form 144 for each sale made in connection with the Plan.

Issuer Name: **BioXcel Therapeutics, Inc.**
Client Name: **Vimal Mehta**
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5.4 A Form 144 shall be filed for all applicable sales pursuant to this Plan and shall indicate that the sales are made pursuant to this Plan.

5.5 Merrill Lynch will conduct sales pursuant to Rule 144 or Rule 145 if appropriate, including applying Rule 144 volume limitations as if the sales under the Plan were the only sales subject to the volume limitations unless I have notified Merrill Lynch in advance in writing of additional sales that must be aggregated with sales under the Plan for purposes of the volume limitations.

5.6 Pursuant to Section 5.5 above, I agree not to take any action or to cause any other person or entity to take any action that would require me to aggregate sales of Shares pursuant to Rule 144 with sales of Shares under the Plan without giving advance written notice of such action and confirming any such sales to Merrill Lynch and I agree not to take any action that would cause the sales of Shares under the Plan not to comply with Rule 144 or Rule 145.

6. Representations, Warranties and Covenants

In consideration of Merrill Lynch accepting orders to sell securities under this Plan, I make the following representations, warranties and covenants:

6.1 I have established the Plan in good faith, in compliance with the requirements of Rule 10b5-1, and at a time when I was not aware of material nonpublic information about the Shares or the Issuer.

6.2 I have consulted with legal counsel and other advisors in connection with my decision to enter into the Plan and have confirmed that the Plan meets the criteria set forth in Rule 10b5-1. I have not received or relied on any representations by Merrill Lynch regarding the Plan's compliance with Rule 10b5-1.

6.3 I have provided, or caused the Issuer to provide, Merrill Lynch with a certificate completed by the Issuer, substantially in the form of Annex A hereto ("Issuer Certificate").

6.4 I own all Shares that are subject to the Plan free and clear of liens or encumbrances of any kind, and/or I will own all such Shares free and clear of liens or encumbrances of any kind at the time of their Sale as provided for in this Plan. I will own any Shares acquired under employee stock options exercised pursuant to the Plan free and clear of liens or encumbrances, except for any liens or encumbrances in favor of Merrill Lynch. There are no restrictions imposed on me, the Shares or the Issuer that would prevent Merrill Lynch or me from complying with the Plan.

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6.5 While the Plan is in effect, except as provided in the Plan, I will not engage in offsetting or hedging transactions in violation of Rule 10b5-1; and I will notify Merrill Lynch in advance of any sales or purchases of, or derivative transactions on, any of the Issuer's securities initiated by me.

6.6 While the Plan is in effect, I will not disclose to any employee of Merrill Lynch, including my Private Wealth Advisor or Financial Advisor, any material nonpublic information concerning the Shares or the Issuer.

6.7 While the Plan is in effect, I will not attempt to exercise any influence over how, when or whether to effect sales of Shares.

6.8 The Plan does not violate the Issuer's insider trading policies.

6.9 Subject to Merrill Lynch's obligations in Section 5, I agree to make or cause to be made all filings required under the Securities Act and/or the Exchange Act, including under Rule 144 and pursuant to Section 13 and Section 16 of the Exchange Act, and any other filings necessary.

6.10 As to delivery requirements:

1. For securities other than stock options, prior to the date of execution of any sales specified under the Plan, I agree to have delivered into the custody of Merrill Lynch all transfer documents and other authorizations required for Merrill Lynch to effect settlement of sales of such Shares on my behalf.

2. For employee stock options, the number of options granted to me by the Issuer that are vested, exercisable and registered is equal to or greater than the number of options to be exercised and the underlying Shares to be sold under the Plan. I agree to provide to Merrill Lynch all necessary documentation, properly executed, to effect the timely exercise of the stock options and the subsequent sale and settlement of the Shares.

3. I agree that Merrill Lynch's obligation to execute sales under the Plan is conditioned on the satisfaction of the foregoing delivery requirements.

6.11 I agree to inform Merrill Lynch as soon as possible of any of the following:

1. any subsequent restrictions imposed on me due to changes in the securities (or other) laws or of any contractual restrictions imposed on the Issuer that would prevent Merrill Lynch or me from complying with the Plan, and

2. the occurrence of any event as set forth in the Plan that would cause the Plan to be suspended or terminated under Section 7 or Section 8 of the Plan, respectively.

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Client Name: **Vimal Mehta**
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7. Suspension

7.1 Sales pursuant to Section 1 above shall be suspended where:

1. Merrill Lynch determines that a suspension, halt or delay of trading of Shares on securities exchanges, alternative trading systems, and other markets it accesses to sell Shares (each a "Trading System") prevents Merrill Lynch from selling Shares under this Plan, such as when there is a market-wide regulatory halt or delay. For the avoidance of doubt, if there is a non-regulatory halt or delay of trading on a Trading System, such as a halt or delay of trading due to a systems issue specific to that Trading System, Merrill Lynch may sell Shares under this Plan on another Trading System that is not affected by the halt or delay;

2. there is insufficient demand for any or all of the Shares at or above the specified price (e.g., the specified price met but all Shares could not be sold at or above the specified price);

3. Merrill Lynch, in its sole discretion, determines that there is a legal, regulatory or contractual reason why it cannot effect a sale of Shares;

4. Merrill Lynch is notified in writing by the Issuer that a sale of Shares should not be effected due to legal, regulatory or contractual restrictions applicable to the Issuer or to me (including without limitation, Regulation M) or other material adverse consequence to the Issuer;

5. Merrill Lynch is notified in writing by the Issuer that (i) in the case of Shares being sold that will be acquired pursuant to a registration statement filed under the Securities Act, the registration statement has terminated, been suspended, expired or is otherwise unavailable; or (ii) a public announcement of a public offering of securities by the Issuer has been made.

7.2 Merrill Lynch will resume sales in accordance with the Plan as promptly as practicable after (a) Merrill Lynch receives notice in writing from the Issuer that it may resume sales in accordance with Section 1 of the Plan in the case of the occurrence of an event described in 7.1.4 or 7.1.5 above or (b) Merrill Lynch determines, in its sole discretion, that it may resume sales in accordance with the Plan in the case of the occurrence of an event described in 7.1.1, 7.1.2 or 7.1.3 above.

7.3 Shares allocated under the Plan for sale during a period that has elapsed due to a suspension under this Section will be carried forward to be sold with the next amount of shares to be sold in accordance with Section 1 of the Plan. In the event Section 1 of the Plan provides for an amount of Shares to be sold during a given period pursuant to a limit order, Shares that would otherwise be permitted to be sold during that period, shall, upon lapse of the suspension, nonetheless be carried forward to be sold with the next amount of Shares to be sold in accordance with Section 1 of the Plan.

7.4 Merrill Lynch is released from all liability in connection with any suspension of sales in accordance with this Section 7, including, but not limited to, liability for the expiration of stock options or loss of market value.

8. Termination

The Plan shall terminate on the earliest to occur of the following:

8.1 the Plan End Date listed in the Sales Instruction;

8.2 the completion of all sales contemplated in Section 1 of the Plan;

8.3 my or Merrill Lynch's reasonable determination that: (a) the Plan does not comply with Rule 10b5-1 or other applicable securities laws; (b) I have not complied with the Plan, Rule 10b5-1 or other applicable securities laws; or (c) I have made misstatements in my representations or warranties in Section 6, above;

8.4 receipt by Merrill Lynch of written notice from the Issuer or me of: (a) the filing of a bankruptcy petition by the Issuer; (b) the closing of a merger, recapitalization, acquisition, tender or exchange offer, or other business combination or reorganization resulting in the exchange or conversion of the Shares of the Issuer into shares of a company other than the Issuer; or (c) the conversion of the Shares into rights to receive fixed amounts of cash or into debt securities and/or preferred stock (whether in whole or in part);

8.5 receipt by Merrill Lynch of written notice of my death or legal incapacity; or

8.6 receipt by Merrill Lynch of written notice of termination from me.

9. Indemnification

9.1 I agree to indemnify and hold harmless Merrill Lynch and its directors, officers, employees and affiliates from and against all claims, losses, damages and liabilities, including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any such claim, arising out of or attributable to Merrill Lynch's actions taken in compliance with the Plan, any breach by me of the Plan, or any violation by me of applicable federal or state laws or regulations. This indemnification shall survive termination of the Plan.

9.2 Merrill Lynch agrees to indemnify and hold me harmless from and against all claims, losses, damages and liabilities including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any such action or claim arising out of or attributable to Merrill Lynch's gross negligence or willful misconduct in connection with the Plan.

Issuer Name: **BioXcel Therapeutics, Inc.**
Client Name: **Vimal Mehta**
Symbol: **BTAI**

10. Modification and Amendment

The Plan, including the Sales Instruction, may be modified or amended only upon (a) the written agreement of me and Merrill Lynch; (b) the receipt by Merrill Lynch of written confirmation signed by me to the effect that the representations, warranties and

covenants contained in Section 6 above, are true as of the date of such written confirmation; and (c) the receipt by Merrill Lynch of a new Issuer Certificate or written confirmation signed by the Issuer that the representations, warranties and covenants contained in the original Issuer Certificate are true as of the date of such written confirmation.

11. Counterparts

The Plan may be signed in counterparts, each of which will be an original. A signed copy of this Plan delivered by e-mail or other means of electronic transmission is deemed to have the same legal effect as delivery of an original signed copy of this Plan.

12. Entire Agreement

The Plan, including the representations, warranties and covenants in Section 6, constitutes the entire agreement between me and Merrill Lynch regarding the Plan and supersedes any prior agreements or understandings regarding the Plan.

13. Governing Law

This Plan will be governed by and construed in accordance with the laws of the State of New York.

Recognition of the U.S. Special Resolution Regimes Applicable to a Non-U.S. Domiciled Client.

In the event that Merrill Lynch becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from Merrill Lynch of this Plan, and any interest and obligation in or under this Plan, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Plan, and any such interest and obligation, were governed by the laws of the United States or a state of the United States. In the event that Merrill Lynch or any BHC Act Affiliate of Merrill Lynch becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Plan that may be exercised against Merrill Lynch are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Plan were governed by the laws of the United States or a state of the United States. For purposes of this paragraph, "**BHC Act Affiliate**" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k); "**Default Right**" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2, 382.1, as applicable; and "**U.S. Special Resolution Regime**" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

Issuer Name: **BioXcel Therapeutics, Inc.**
Client Name: **Vimal Mehta**
Symbol: **BTAI**

14. Officer & Director Equity Service

If seller is subject to the reporting requirements of Section 16 of the Exchange Act, complete the following to have transaction information for open market transactions under the Plan forwarded to a designated third party.

14.1 I authorize Merrill Lynch to transmit transaction information via facsimile and/or email regarding open market transactions under the Plan to:

Name: Vimal Mehta	Name: Richard Steinhart
Title: Chief Executive Officer and President	Title: Chief Financial Officer
Organization: BioXcel Therapeutics, Inc.	Organization: BioXcel Therapeutics, Inc.
e-mail: [ ]	e-mail: [ ]
Tel: [ ]	Tel: [ ]

Name: Ellen Smiley
Title: Counsel
Organization: Latham & Watkins, LLP
e-mail: [ ]
Tel: [ ]

14.2 I understand that reasonable efforts will be made by Merrill Lynch to transmit transaction information for open market transactions under the Plan (purchase or sale) by the close of business on the day of the purchase or sale, but no later than the close of business on the first trading day following the purchase or sale.

14.3 I acknowledge that Merrill Lynch (a) has no obligation to confirm receipt of any email or faxed information by the designated contact and (b) has no responsibility or liability for filing a Form 4 with the SEC or for compliance with Section 16 of the Exchange Act.

14.4 If any of the above contact information changes, or I would like to terminate this authorization, I will promptly notify Merrill Lynch in writing. I further authorize Merrill Lynch to transmit transaction information to a third party service provider who will make the information available to my designated representative(s) listed above.

Issuer Name: **BioXcel Therapeutics, Inc.**
Client Name: **Vimal Mehta**
Symbol: **BTAI**

15. **Notices**

All notices given by the parties under the Plan will be as set forth in the Sales Instruction.

By: /s/ Vimal D. Mehta
Name: Vimal Mehta
Date: August 31, 2022

Merrill Lynch, Pierce, Fenner & Smith Incorporated

Acknowledged and Agreed this 31 day of August, 2022

By: /s/ Paul Bowes
Name: Paul Bowes
Title: Market Supervision Manager