

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

SCHEDULE 14A
(RULE 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to § 240.14a-12

BioXcel Therapeutics, Inc.

(Name of Registrant as Specified in its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

 (2) Aggregate number of securities to which transaction applies:

 (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

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- Fee paid previously with preliminary materials.
- Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount Previously Paid:

 (2) Form, Schedule or Registration Statement No.:

 (3) Filing Party:

 (4) Date Filed:



BioXcel Therapeutics, Inc.
555 Long Wharf Drive
New Haven, CT 06511

April [], 2021

Dear Stockholders:

On behalf of the Board of Directors, I cordially invite you to attend the 2021 annual meeting of stockholders (the “Annual Meeting”) of BioXcel Therapeutics, Inc., which will be held on Friday, June 11, 2021, beginning at 9:00 a.m., Eastern Time. The Annual Meeting will be a completely virtual meeting, which will be conducted via live webcast at www.virtualshareholdermeeting.com/BTAI2021.

In accordance with the Securities and Exchange Commission rules allowing companies to furnish proxy materials to their stockholders over the Internet, we have sent stockholders of record at the close of business on April 12, 2021 a Notice of Internet Availability of Proxy Materials. The notice contains instructions on how to access our Proxy Statement and Annual Report and vote online. If you would like to receive a printed copy of our proxy materials from us instead of downloading a printable version from the Internet, please follow the instructions for requesting such materials included in the notice, as well as in the attached Proxy Statement.

Attached to this letter are a Notice of Annual Meeting of Stockholders and Proxy Statement, which describe the business to be conducted at the meeting.

Your vote is important to us. Please act as soon as possible to vote your shares. It is important that your shares be represented at the meeting whether or not you plan to attend the annual meeting via the Internet. Please vote electronically over the Internet, by telephone or, if you receive a paper copy of the proxy card by mail, by returning your signed proxy card in the envelope provided. You may also vote your shares online during the Annual Meeting. Instructions on how to vote while participating at the meeting live via the Internet are posted at www.virtualshareholdermeeting.com/BTAI2021.

On behalf of the Board of Directors and management, it is my pleasure to express our appreciation for your continued support.

A handwritten signature in black ink, appearing to read 'P. Mueller', written in a cursive style.

Peter Mueller
Chairman of the Board



BioXcel Therapeutics, Inc.
555 Long Wharf Drive
New Haven, CT 06511

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON JUNE 11, 2021**

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of BioXcel Therapeutics, Inc., a Delaware corporation, will be held on Friday, June 11, 2021, at 9:00 a.m., Eastern Time. The Annual Meeting will be a completely virtual meeting, which will be conducted via live webcast. You will be able to attend the Annual Meeting online and submit your questions during the meeting by visiting www.virtualshareholdermeeting.com/BTAI2021. For instructions on how to attend and vote your shares at the Annual Meeting, see the information in the accompanying Proxy Statement in the section titled "General Information about the Annual Meeting and Voting — How can I attend and vote at the Annual Meeting?"

The Annual Meeting is being held:

1. to elect Vimal Mehta, Ph.D. and Peter Mueller, Ph.D. as Class III directors to hold office until the Company's annual meeting of stockholders to be held in 2024 and until their respective successors have been duly elected and qualified;
2. to ratify, in a non-binding vote, the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for 2021;
3. to approve an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock of the Company from 50,000,000 to 100,000,000;
4. to approve an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes at the time of the Annual Meeting to approve Proposal 3; and
5. to transact such other business as may properly come before the Annual Meeting or any continuation, postponement or adjournment thereof.

These items of business are described in the Proxy Statement that follows this notice. Holders of record of our common stock as of the close of business on April 12, 2021 are entitled to notice of and to vote at the Annual Meeting, or any continuation, postponement or adjournment thereof.

Your vote is important. Voting your shares will ensure the presence of a quorum at the Annual Meeting and will save us the expense of further solicitation. Please promptly vote your shares by following the instructions for voting on the Notice Regarding the Availability of Proxy Materials or, if you received a paper or electronic copy of our proxy materials, by completing, signing, dating and returning your proxy card or by Internet or telephone voting as described on your proxy card.

By Order of the Board of Directors,

Javier Rodriguez
Chief Legal Officer and Corporate Secretary

New Haven, CT
April [], 2021

This Notice of Annual Meeting and Proxy Statement are first being distributed or made available, as the case may be, on or about April [], 2021.

Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting: This Proxy Statement and our Annual Report are available free of charge at www.proxyvote.com.

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BioXcel Therapeutics, Inc.
 555 Long Wharf Drive
 New Haven, CT 06511

**PROXY STATEMENT
 FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 11, 2021**

This proxy statement (the “Proxy Statement”) and our annual report for the fiscal year ended December 31, 2020 (the “Annual Report”) and, together with the Proxy Statement, the “proxy materials”) are being furnished by and on behalf of the board of directors (the “Board” or the “Board of Directors”) of BioXcel Therapeutics, Inc. (the “Company,” “BTAL,” “we,” “us,” or “our”), in connection with our 2021 annual meeting of stockholders (the “Annual Meeting”). This Notice of Annual Meeting and Proxy Statement are first being distributed or made available, as the case may be, on or about April [], 2021.

GENERAL INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

When and where will the Annual Meeting be held?

The Annual Meeting will be held on Friday, June 11, 2021 at 9:00 a.m., Eastern Time. The Annual Meeting will be a completely virtual meeting, which will be conducted via live webcast. You will be able to attend the Annual Meeting online and submit your questions during the meeting by visiting www.virtualshareholdermeeting.com/BTAI2021 and entering your 16-digit control number included in your Notice of Internet Availability of Proxy Materials, on your proxy card or on the instructions that accompanied your proxy materials. If you lose your 16-digit control number, you may join the Annual Meeting as a “Guest” but you will not be able to vote, ask questions or access the list of stockholders as of the as of the close of business on April 12, 2021 (the “Record Date”).

What are the purposes of the Annual Meeting?

The purpose of the Annual Meeting is to vote on the following items described in this Proxy Statement:

- Proposal No. 1: Election of the director nominees listed in this Proxy Statement.
- Proposal No. 2: Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for 2021.
- Proposal No. 3: Approval of an amendment to the Company’s Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock of the Company from 50,000,000 to 100,000,000.
- Proposal No. 4: Approval of an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes at the time of the Annual Meeting to approve Proposal 3.

Are there any matters to be voted on at the Annual Meeting that are not included in this Proxy Statement?

At the date this Proxy Statement went to press, we did not know of any matters to be properly presented at the Annual Meeting other than those referred to in this Proxy Statement. If other matters are properly presented at the meeting or any adjournment or postponement thereof for consideration, and you are a stockholder of record and have submitted a proxy card, the persons named in your proxy card will have the discretion to vote on those matters for you.

Why did I receive a notice in the mail regarding the Internet availability of proxy materials instead of a paper copy of proxy materials?

The rules of the Securities and Exchange Commission (the “SEC”) permit us to furnish proxy materials, including this Proxy Statement and the Annual Report, to our stockholders by providing access to such

documents on the Internet instead of mailing printed copies. Stockholders will not receive paper copies of the proxy materials unless they request them. Instead, the Notice of Internet Availability of Proxy Materials (the “Notice and Access Card”) provides instructions on how to access and review on the Internet all of the proxy materials. The Notice and Access Card also instructs you as to how to authorize via the Internet or telephone your proxy to vote your shares according to your voting instructions. If you would like to receive a paper or email copy of our proxy materials, you should follow the instructions for requesting such materials described in the Notice and Access Card.

What does it mean if I receive more than one Notice and Access Card or more than one set of proxy materials?

It means that your shares are held in more than one account at the transfer agent and/or with banks or brokers. Please vote all of your shares. To ensure that all of your shares are voted, for each Notice and Access Card or set of proxy materials, please submit your proxy by phone, via the Internet, or, if you received printed copies of the proxy materials, by signing, dating and returning the enclosed proxy card in the enclosed envelope.

Can I vote my shares by filling out and returning the Notice and Access Card?

No. The Notice and Access Card identifies the items to be voted on at the Annual Meeting, but you cannot vote by marking the Notice and Access Card and returning it. If you would like a paper proxy card, you should follow the instructions in the Notice and Access Card. The paper proxy card you receive will also provide instructions as to how to authorize via the Internet or telephone your proxy to vote your shares according to your voting instructions. Alternatively, you can mark the paper proxy card with how you would like your shares voted, sign the proxy card and return it in the envelope provided.

Who is entitled to vote at the Annual Meeting?

Holders of record of shares of our common stock as of the close of business on the Record Date will be entitled to notice of and to vote at the Annual Meeting and any continuation, postponement or adjournment thereof. At the close of business on the Record Date, there were 24,631,573 shares of our common stock issued and outstanding and entitled to vote. Each share of our common stock is entitled to one vote on any matter presented to stockholders at the Annual Meeting. You will need to obtain your own Internet access if you choose to attend the Annual Meeting online and/or vote over the Internet.

To attend and participate in the Annual Meeting, you will need the 16-digit control number included in your Notice and Access Card, on your proxy card or on the instructions that accompanied your proxy materials. If your shares are held in “street name,” you should contact your bank or broker to obtain your 16-digit control number or otherwise vote through the bank or broker. If you lose your 16-digit control number, you may join the Annual Meeting as a “Guest” but you will not be able to vote, ask questions or access the list of stockholders as of the Record Date. The meeting webcast will begin promptly at 9:00 a.m., Eastern Time. We encourage you to access the meeting prior to the start time. Online check-in will begin at 8:45 a.m., Eastern Time, and you should allow ample time for the check-in procedures.

What is the difference between being a “record holder” and holding shares in “street name”?

A record holder (also called a “registered holder”) holds shares in his or her name. Shares held in “street name” means that shares are held in the name of a bank, broker or other nominee on the holder’s behalf.

What do I do if my shares are held in “street name”?

If your shares are held in a brokerage account or by a bank or other holder of record, you are considered the “beneficial owner” of shares held in “street name.” The Notice and Access Card or the proxy materials, if you elected to receive a hard copy, has been forwarded to you by your broker, bank or other nominee who is considered, with respect to those shares, the stockholder of record. As the beneficial owner, you have the right to direct your broker, bank or other holder of record on how to vote your shares by following their instructions for voting. Please refer to information from your bank, broker or other nominee on how to submit your voting instructions.

How many shares must be present to hold the Annual Meeting?

A quorum must be present at the Annual Meeting for any business to be conducted. The holders of at least one-third of the voting power of the Company's capital stock issued and outstanding and entitled to vote, present in person, or by remote communication, or represented by proxy constitutes a quorum. If you sign and return your paper proxy card or authorize a proxy to vote electronically or telephonically, your shares will be counted to determine whether we have a quorum even if you abstain or fail to vote as indicated in the proxy materials.

Broker non-votes will also be considered present for the purpose of determining whether there is a quorum for the Annual Meeting.

What are "broker non-votes"?

A "broker non-vote" occurs when shares held by a broker in "street name" for a beneficial owner are not voted with respect to a proposal because (1) the broker has not received voting instructions from the stockholder who beneficially owns the shares and (2) the broker lacks the authority to vote the shares at their discretion.

Under current stock market rules that govern broker non-votes, Proposal No. 1 is considered a non-routine matter, and a broker will lack the authority to vote uninstructed shares at their discretion on such proposal. Proposal Nos. 2, 3 and 4 are considered routine matters, and a broker will be permitted to exercise its discretion to vote uninstructed shares on such proposals.

What if a quorum is not present at the Annual Meeting?

If a quorum is not present or represented at the scheduled time of the Annual Meeting, (i) the chairperson of the Annual Meeting or (ii) a majority in voting power of the stockholders entitled to vote at the Annual Meeting, present electronically or represented by proxy, may adjourn the Annual Meeting until a quorum is present or represented.

How do I vote my shares without attending the Annual Meeting?

We recommend that stockholders vote by proxy even if they plan to attend the Annual Meeting and vote electronically. If you are a stockholder of record, there are three ways to vote by proxy:

- by Telephone — You can vote by telephone by calling 1-800-690-6903 and following the instructions on the proxy card;
- by Internet — You can vote over the Internet at www.proxyvote.com by following the instructions on the Internet Notice or proxy card; or
- by Mail — You can vote by mail by signing, dating and mailing the proxy card, which you may have received by mail.

Telephone and Internet voting facilities for stockholders of record will be available 24 hours a day and will close at 11:59 p.m., Eastern Time, on June 10, 2021.

If your shares are held in the name of a bank, broker or other holder of record, you will receive instructions on how to vote from the bank, broker or holder of record. You must follow the instructions of such bank, broker or holder of record in order for your shares to be voted.

How can I attend and vote at the Annual Meeting?

We will be hosting the Annual Meeting live via audio webcast. Any stockholder can attend the Annual Meeting live online at www.virtualshareholdermeeting.com/BTAI2021. If you were a stockholder as of the Record Date, or you hold a valid proxy for the Annual Meeting, you can vote at the Annual Meeting. A summary of the information you need to attend the Annual Meeting online is provided below:

- Instructions on how to attend and participate via the Internet, including how to demonstrate proof of stock ownership, are posted at www.virtualshareholdermeeting.com/BTAI2021.

- Assistance with questions regarding how to attend and participate via the Internet will be provided at www.virtualshareholdermeeting.com/BTAI2021 on the day of the Annual Meeting.
- Webcast starts at 9:00 a.m., Eastern Time.
- You will need your 16-Digit Control Number to enter the Annual Meeting.
- Stockholders may submit questions while attending the Annual Meeting via the Internet.
- Webcast replay of the Annual Meeting will be available until July 11, 2021.

To attend and participate in the Annual Meeting, you will need the 16-digit control number included in your Notice and Access Card, on your proxy card or on the instructions that accompanied your proxy materials. If your shares are held in “street name,” you should contact your bank or broker to obtain your 16-digit control number or otherwise vote through the bank or broker. If you lose your 16-digit control number, you may join the Annual Meeting as a “Guest” but you will not be able to vote, ask questions or access the list of stockholders as of the Record Date.

What if during the check-in time or during the Annual Meeting I have technical difficulties or trouble accessing the virtual meeting website?

We will have technicians ready to assist you with any technical difficulties you may have accessing the virtual meeting website. If you encounter any difficulties accessing the virtual meeting website during the check-in or meeting time, please call the technical support number that will be posted on the Annual Meeting login page.

How does the Board recommend that I vote?

The Board recommends that you vote:

- FOR the nominees to the Board set forth in this Proxy Statement.
- FOR the ratification of the appointment of Ernst & Young, LLP as our independent registered public accounting firm for 2021.

How many votes are required to approve each proposal?

The table below summarizes the proposals that will be voted on, the vote required to approve each item and how votes are counted:

| <u>Proposal</u> | <u>Votes Required</u> | <u>Voting Options</u> | <u>Impact of "Withhold" or "Abstain" Votes</u> | <u>Broker Discretionary Voting Allowed</u> |
|---|---|---|--|--|
| Proposal No. 1: Election of Directors | The plurality of the votes cast by the stockholders present in person or represented by proxy at the meeting and entitled to vote thereon. This means that the two nominees receiving the highest number of affirmative "FOR" votes will be elected as Class III directors. | "FOR ALL" "WITHHOLD ALL" "FOR ALL EXCEPT" | None ⁽¹⁾ | No ⁽³⁾ |
| Proposal No. 2: Ratification of Appointment of Independent Registered Public Accounting Firm | The affirmative vote of the holders of a majority in voting power of the votes cast affirmatively or negatively at the Annual Meeting by the holders entitled to vote thereon. | "FOR" "AGAINST" "ABSTAIN" | None ⁽²⁾ | Yes ⁽⁴⁾ |
| Proposal No. 3: Approval of an amendment to the Company's Amended and Restated Certificate of Incorporation | The affirmative vote of the holders of a majority of the outstanding stock of the Company entitled to vote at the Annual Meeting. | "FOR" "AGAINST" "ABSTAIN" | Abstentions have the same effect as votes against the proposal | Yes ⁽⁴⁾ |

(1) Votes that are "withheld" will have the same effect as an abstention and will not count as a vote "FOR" or "AGAINST" a director, because directors are elected by plurality voting.

(2) A vote marked as an "Abstention" is not considered a vote cast and will, therefore, not affect the outcome of this proposal.

(3) As this proposal is not considered a discretionary matter, brokers lack authority to exercise their discretion to vote uninstructed shares on this proposal.

(4) As this proposal is considered a discretionary matter, brokers are permitted to exercise their discretion to vote uninstructed shares on this proposal.

What if I do not specify how my shares are to be voted?

If you submit a proxy but do not indicate any voting instructions, the persons named as proxies will vote in accordance with the recommendations of the Board. The Board's recommendations are set forth above, as well as with the description of each proposal in this Proxy Statement.

Who will count the votes?

Representatives of Broadridge Investor Communications Services ("Broadridge") will tabulate the votes, and a representative of Broadridge will act as inspector of election.

Can I revoke or change my vote after I submit my proxy?

Yes. Whether you have voted by Internet, telephone or mail, if you are a stockholder of record, you may change your vote and revoke your proxy by:

- sending a written statement to that effect to the attention of our Corporate Secretary at our corporate offices, provided such statement is received no later than June 10, 2021;
- voting again by Internet or telephone at a later time before the closing of those voting facilities at 11:59 p.m., Eastern Time, on June 10, 2021;
- submitting a properly signed proxy card with a later date that is received no later than June 10, 2021; or
- attending the Annual Meeting, revoke your proxy and voting again.

If you hold shares in street name, you may submit new voting instructions by contacting your bank, broker or other nominee. You may also change your vote or revoke your proxy at the Annual Meeting if you obtain a signed proxy from the record holder (broker, bank or other nominee) giving you the right to vote the shares.

Your most recent proxy card or telephone or Internet proxy is the one that is counted. Your attendance at the Annual Meeting by itself will not revoke your proxy unless you give written notice of revocation to the Company before your proxy is voted or you vote at the Annual Meeting.

Who will pay for the cost of this proxy solicitation?

We will pay the cost of soliciting proxies. Proxies may be solicited on our behalf by directors, officers or employees (for no additional compensation) in person or by telephone, electronic transmission and facsimile transmission. Brokers and other nominees will be requested to solicit proxies or authorizations from beneficial owners and will be reimbursed for their reasonable expenses.

Why hold a virtual meeting?

As part of our effort to maintain a safe and healthy environment for our directors, members of management and stockholders who wish to attend the Annual Meeting, in light of the COVID-19 pandemic, we believe that hosting a virtual meeting is in the best interest of the Company and its stockholders. In addition, we are excited to use the latest technology to provide expanded access, improved communication and cost savings for our stockholders and the Company while providing stockholders the same rights and opportunities to participate as they would have at an in-person meeting. We believe the virtual meeting format enables increased stockholder attendance and participation because stockholders can participate from any location around the world.

Will I be able to ask questions at the Annual Meeting?

As part of the Annual Meeting, we will hold a live Q&A session, during which we intend to answer appropriate questions submitted during the meeting and that relate to the matters to be voted on. We intend to reserve up to 10 minutes before the closing of the polls to address questions submitted. Only stockholders that have accessed the Annual Meeting as a stockholder (rather than a “Guest”) by following the procedures outlined above in “How can I attend and vote at the Annual Meeting?” will be able to submit questions during the Annual Meeting. Additionally, our Annual Meeting will follow “Rules of Conduct,” which will be available on our Annual Meeting webpage for stockholders that have accessed the Annual Meeting as a stockholder (rather than a “Guest”). Under these Rules of Conduct, a stockholder may ask up to two questions, and we will not address questions that are, among other things:

- irrelevant to the business of the Company or to the business of the Annual Meeting;
- related to the status or conduct of our clinical trials beyond that which is contained in our prior public disclosures;
- related to material non-public information of the Company;

- related to personal grievances;
- derogatory references to individuals or that are otherwise in bad taste;
- substantially repetitious of statements already made by another stockholder;
- in furtherance of the stockholder’s personal or business interests; or
- out of order or not otherwise suitable for the conduct of the Annual Meeting as determined by the Chair of the Annual Meeting or the Corporate Secretary in their reasonable judgment.

Additional information regarding the Q&A session will be available in the “Rules of Conduct” available on the Annual Meeting webpage for stockholders that have accessed the Annual Meeting as a stockholder (rather than a “Guest”) by following the procedures outlined above in “How can I attend and vote at the Annual Meeting?”.

PROPOSAL NO. 1 — ELECTION OF DIRECTORS**Board Size and Structure**

Our certificate of incorporation as currently in effect (“Certificate of Incorporation”) provides that the number of directors shall be established from time to time by our Board of Directors. Our Board of Directors has fixed the number of directors at six, and we currently have six directors serving on the Board.

Our Certificate of Incorporation provides that the Board be divided into three classes, designated as Class I, Class II and Class III. Each class must consist, as nearly as may be possible, of one-third of the total number of directors constituting the entire Board. Each class of directors must stand for re-election no later than the third annual meeting of stockholders subsequent to their initial appointment or election to the Board, subject to the election and qualification of his or her successor and his or her earlier death, resignation, retirement, disqualification or removal. Except as otherwise required by law, any vacancies and newly created directorships resulting from an increase in the number of directors will be filled exclusively by a majority of the directors then in office, even if less than a quorum, and will hold office until the next stockholder’s meeting at which directors are elected and his or her successor is elected and qualified or until his or her earlier death, resignation, retirement, disqualification or removal.

Current Directors and Terms

Our current directors and their respective classes and terms are set forth below.

| Class I Director — Current Term Ending at 2022 Annual Meeting | Class II Director — Current Term Ending at 2023 Annual Meeting | Class III Director — Current Term Ending at this Annual Meeting |
|--|---|--|
| Krishnan Nandabalan, Ph.D. June Bray | Sandeep Laumas, M.D. Michal Votruba, M.D., Ph.D. | Vimal Mehta, Ph.D. Peter Mueller, Ph.D. |

Nominees for Director

Drs. Mehta and Mueller have been nominated by the Board to stand for election. As the directors assigned to Class III, Drs. Mehta and Mueller’s current terms of service will expire at the Annual Meeting. If elected by the stockholders at the Annual Meeting, Drs. Mehta and Mueller will each serve for a term expiring at the annual meeting to be held in 2024 (the “2024 Annual Meeting”) and the election and qualification of his successor or until his earlier death, resignation, retirement, disqualification or removal.

Each person nominated for election has agreed to serve if elected, and management has no reason to believe that any nominee will be unable to serve. If, however, prior to the Annual Meeting, the Board of Directors should learn that any nominee will be unable to serve for any reason, the proxies that otherwise would have been voted for this nominee will be voted for a substitute nominee as selected by the Board. Alternatively, the proxies, at the Board’s discretion, may be voted for that fewer number of nominees as results from the inability of any nominee to serve. The Board has no reason to believe that any of the nominees will be unable to serve.

Information About Board Nominees and Continuing Directors

The following pages contain certain biographical information as of April 14, 2021 for each nominee for director and each director whose term as a director will continue after the Annual Meeting, including all positions he or she holds, his or her principal occupation and business experience for the past five years, and the names of other publicly-held companies of which the director or nominee currently serves as a director or has served as a director during the past five years.

We believe that all of our directors and nominees: display personal and professional integrity; satisfactory levels of education and/or business experience; broad-based business acumen; an appropriate level of understanding of our business and its industry and other industries relevant to our business; the ability and willingness to devote adequate time to the work of our Board of Directors and its committees; skills and personality that complement those of our other directors that helps build a board that is effective, collegial

and responsive to the needs of our Company; strategic thinking and a willingness to share ideas; a diversity of experiences, expertise and background; and the ability to represent the interests of all of our stockholders. The information presented below regarding each nominee and continuing director also sets forth specific experience, qualifications, attributes and skills that led our Board of Directors to the conclusion that such individual should serve as a director in light of our business and structure.

Nominees for Election to Three-Year Terms Expiring No Later than the 2024 Annual Meeting

| <u>Class III Directors</u> | <u>Age</u> | <u>Served as Director Since</u> | <u>Current Positions with BTAI</u> |
|----------------------------|------------|---------------------------------|---|
| Vimal Mehta, Ph.D. | 60 | April 2017 | Chief Executive Officer and President, and Director |
| Peter Mueller, Ph.D. | 65 | April 2017 | Chairman of the Board |

Vimal Mehta, Ph.D. co-founded the Company and has served as a member on our Board since April 2017 and as our Chief Executive Officer and President since May 2017. Dr. Mehta also served as our Corporate Secretary from May 2017 to February 2021. He is also the co-founder of BioXcel Corporation (now BioXcel LLC) and, following its inception in 2005, has served as its Chairman of the Board and Chief Executive Officer. Dr. Mehta has held various senior scientific and business development positions, including Senior Vice President of Business Development at London-based Inpharmatica Ltd, a global predictive informatics company, from 2002 to 2006 and Senior Vice President, Business Development for Jubilant Life Sciences, an integrated global pharmaceutical and life sciences company, from 2006 to 2007. Previously, Dr. Mehta served as Business Development Manager at CuraGen Corporation, a biotechnology company, from 1996 to 2002. He held multiple positions in the Department of Radiology at the University of Texas, Southwestern Medical Center from 1989 to 1996, including Postdoctoral Fellow, Instructor and Assistant Professor. Dr. Mehta holds a Ph.D. in Chemistry from the University of Delhi, India and completed a Post-Doctoral Fellowship in Chemistry at the University of Montpellier, France. During the length of his career, Dr. Mehta has garnered a deep understanding of the biopharma and healthcare ecosystem and has been actively involved in diverse global value generating initiatives encompassing corporate strategy and planning, global business development, and corporate fundraising. As our co-founder, he has helped shape our strategic and business trajectory which the Board believes qualifies him to serve as a director of our Company.

Peter Mueller, Ph.D. has served as a director of our company since April 2017 and Chairman of the Board since August 2017. With over 30 years of global pharma and biotech experience, Dr. Mueller is currently the President of the Mueller Health Foundation, a private foundation tackling globally lethal infectious diseases such as tuberculosis by addressing latency and the ever-growing challenges of antimicrobial resistance. From 2014 to 2016, he was President of R&D and Chief Scientific Officer of Axcella Health, a biotechnology company. From 2003 to 2014, Dr. Mueller served as Executive Vice President Global Research and Development & Chief Scientific Officer for Vertex Pharmaceuticals, Incorporated, a biotechnology company. He was involved in the development of Incivek (2011), Kalydeco (2012), and Orkambi (2014). Prior to his tenure at Vertex, he served as Senior Vice President, Research and Development, for Boehringer Ingelheim Pharmaceuticals, Inc. overseeing global research programs (immunology, inflammation, cardiovascular diseases and gene therapy) and the development of all drug candidates of the company's worldwide portfolio in North and South America, Canada and Japan, beginning in 1997. He was involved in the development of Spiriva, Combivent, Atrovent and Viramune. Dr. Mueller received both an undergraduate degree and a Ph.D. in Chemistry at the Albert Einstein University of Ulm, Germany, where he also holds a Professorship in Theoretical Organic Chemistry. He completed fellowships in Quantum Pharmacology at Oxford University and in Biophysics at Rochester University. He is a member of various scientific and political societies and currently serves on the Board of the US-India Chamber of Commerce Biotech. He also services as chairman of the Scientific Advisory Board of BioXcel LLC and is an advisor to the University of Iowa Center for Bioanalysis and Bioprocessing. We believe that Dr. Mueller's extensive experience in the life sciences industry as a scientist and executive qualifies him to serve as a director of our Company.

Class I Directors Whose Terms Expire at the 2022 Annual Meeting of Stockholders

| Class I Directors | Age | Served as Director Since | Current Positions with BTAI |
|----------------------------|------------|---------------------------------|------------------------------------|
| June Bray | 67 | March 2021 | Director |
| Krishnan Nandabalan, Ph.D. | 58 | May 2017 | Director and Chief Digital Officer |

June Bray served as Senior Vice President, Global Regulatory Affairs and Medical Writing of Allergan, Inc., a pharmaceutical company, from 2008 to 2020, where she was in charge of global regulatory strategies for development projects and lifecycle management for all therapeutic areas. From 2006 to 2008, Ms. Bray was Vice President, Regulatory Affairs at Organon & Co. (prior to its merger with Merck & Co.), where she led departments responsible for regulatory activities for development and marketed products and, from 1980 to 2006, Ms. Bray served in various capacities at Berlex Laboratories, Inc., most recently as Vice President, Global Regulatory Affairs for Specialized Therapeutics/Oncology, a position she held from 2003 to 2006. Ms. Bray holds an M.B.A. from Fairleigh Dickinson University and a B.S. from the University of Rhode Island. We believe that Ms. Bray's extensive experience in developing global regulatory strategies for product candidates qualifies her to serve as a director of our Company. The Board also considered Ms. Bray's gender diversity in connection with her appointment and the Board's objectives of assembling the best qualified group to perform the oversight function of the Board.

Krishnan Nandabalan, Ph.D. co-founded the Company and has served as a member of the Board since May 2017 and a consultant in the capacity of Chief Digital Officer since January 2020. He is also the co-founder of BioXcel Corporation (now BioXcel LLC) and, following its inception in 2005, has served as its President, Secretary and Chief Scientific Officer and as a member of its board of directors. From August 2004 to September 2005, Dr. Nandabalan served as the Vice President of Corporate Development at Genaissance Pharmaceuticals, a population genomics company, from October 2000 to August 2004, he was Vice President of Product Development, Alliances and Business Development, and from October 1998 to October 2000, he was Executive Director of Technology Systems. Prior to this, he served as Group Leader of the Functional Genomics Group at CuraGen Corporation from January 1995 to September 1998. Dr. Nandabalan was also a Founding Director of Ayugen BioSciences, a privately held company that specializes in genomic tests and services, from March 2006 to October 2015. Dr. Nandabalan holds a B.Sc. and M.Sc. in agricultural science from Tamil Nadu Agricultural University and a Ph.D. in biochemistry and molecular biology from Indian Institute of Science. During his career, Dr. Nandabalan has acquired a thorough understanding of market trends impacting the global healthcare environment, the pharma value chain, the current unmet medical needs, and in applying novel technologies to solve these needs, which we believe qualifies him to serve as a director of our Company.

Class II Directors Whose Terms Expire at the 2023 Annual Meeting of Stockholders

| Class II Directors | Age | Served as Director Since | Current Positions with BTAI |
|-----------------------------|------------|---------------------------------|------------------------------------|
| Sandeep Laumas, M.D. | 53 | September 2017 | Director |
| Michal Votruba, M.D., Ph.D. | 55 | March 2019 | Director |

Sandeep Laumas, M.D. has served as a director of our company since September 2017. Since June 2020, Dr. Laumas has served as Chief Business Officer and Chief Financial Officer of Instil Bio Inc. He served as a Director of BioXcel Corporation from May 2013 to August 2017. Dr. Laumas has served as a director of 9 Meters BioPharma, Inc. (formerly Innovate Biopharmaceuticals Inc.), a biopharma company, since January 2014, including serving as the Executive Chairman from 2014 to April 2020, and as its Chief Executive Officer from February 2019 to April 2020. He began his career at Goldman Sachs & Co. in New York in the Investment Banking Division. Dr. Laumas then joined Balyasny Asset Management in New York and later moved to North Sound Capital as a Managing Director responsible for global healthcare investments. He has been investing in healthcare via investment vehicles, Bearing Circle Capital. Dr. Laumas has served as a director of Parkway Holdings Ltd. (IHH Healthcare) and SRL Ltd. Dr. Laumas received his A.B. in Chemistry from Cornell University in 1990, M.D. from Albany Medical College in 1995 with a research gap year at the Dana-Farber Cancer Institute and completed his medical internship in 1996 from the Yale

University School of Medicine. Dr. Laumas has a novel industry perspective, particularly in both public and private investments and financial transactions in the healthcare arena, which we believe qualifies him to serve as a director of our Company.

Michal Votruba, M.D., Ph.D. has served as a director of our Company since March 2019. Since 2013, Dr. Votruba has been a Director of the Gradus/RSJ Life Sciences Fund, the largest dedicated fund in Central Europe with a portfolio of companies in Europe and the United States. Dr. Votruba served as a director of Mynd Analytics, Inc., a telebehavioral health services company, from July 2015 to 2019, and served as a director of Telemetrynd, Inc. in 2019. Since 2010, he has served as a member of the board of PrimeCell Therapeutics as the Director of Global Business Development overseeing the expansion of the largest regenerative medicine company operating in Central Europe. In 2009, the Czech Academy of Sciences solicited Dr. Votruba's expertise for the first successful privatization project of the Institute of Experimental Medicine in Prague: the newly created protocol established a precedent for future privatization projects in the Czech Republic. Dr. Votruba earned his M.D. and Ph.D. from the Medical Faculty of Charles University in Prague in 1989. Shortly thereafter, he emigrated from Czechoslovakia and developed his professional career in Canada and the USA. Since 2005, Dr. Votruba combined his theoretical and clinical experience in the field of Competitive Intelligence serving the global pharmaceutical industry for eight years as an industry analyst advising senior leaders of companies including Amgen, Novartis, Eli Lilly, Allergan, EMD, Serono and Sanofi. Dr. Votruba brings valuable expertise to the Board of Directors as a clinical psychiatrist and broad experience in the international marketing of innovative medical technologies.

Board Recommendation

The Board of Directors unanimously recommends a vote "**FOR**" the election of Vimal Mehta, Ph.D., and Peter Mueller, Ph.D. as Class III directors to hold office until the 2024 Annual Meeting and until their respective successors have been duly elected and qualified.

PROPOSAL NO. 2 — RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Appointment of Independent Registered Public Accounting Firm

The audit committee appoints our independent registered public accounting firm. In this regard, the audit committee evaluates the qualifications, performance and independence of our independent registered public accounting firm and determines whether to re-engage our current firm. As part of its evaluation, the audit committee considers, among other factors, the quality and efficiency of the services provided by the firm, including the performance, technical expertise, industry knowledge and experience of the lead audit partner and the audit team assigned to our account; the overall strength and reputation of the firm; the firm's global capabilities relative to our business; and the firm's knowledge of our operations.

Although ratification is not required by our bylaws or otherwise, the Board is submitting the selection of Ernst & Young LLP to our stockholders for ratification because we value our stockholders' views on the Company's independent registered public accounting firm and it is a good corporate governance practice. If our stockholders do not ratify the selection, it will be considered as notice to the Board and the audit committee to consider the selection of a different firm. Even if the selection is ratified, the audit committee, in its discretion, may select a different independent registered public accounting firm at any time during the year if it determines that such a change would be in the best interests of the Company and its stockholders.

A representative of Ernst & Young LLP is expected to attend the Annual Meeting and to have an opportunity to make a statement and be available to respond to appropriate questions from stockholders.

Change in Independent Registered Public Accounting Firm

As previously disclosed, on March 15, 2021, the audit committee approved the engagement of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2021 and, on the same date, dismissed BDO USA, LLP (BDO) as the Company's independent registered public accounting firm.

The reports of BDO on the Company's financial statements for each of the two fiscal years ended December 31, 2019 and 2020 did not contain an adverse opinion or a disclaimer of opinion, nor were they qualified or modified as to uncertainty, audit scope or accounting principles. In the fiscal years ended December 31, 2019 and 2020 and in the subsequent interim period through March 15, 2021, there were no "disagreements" (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) between the Company and BDO on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedures, which, if not resolved to the satisfaction of BDO, would have caused BDO to make reference to the matter in its report on the financial statements for such years.

In the fiscal years ended December 31, 2019 and 2020 and in the subsequent interim period through March 15, 2021, there were no "reportable events" (as described in Item 304(a)(1)(v) of Regulation S-K), except that, as reported in Part I, Item 4 of the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2020 (the "Quarterly Report"), the Company reported a material weakness in its internal control over financial reporting during such period. As disclosed in the Quarterly Report, the Company concluded that a material weakness existed due to its internal controls having not been adequately designed to prevent or timely detect unauthorized cash disbursements made to the sender of electronic communications impersonating one of the Company's vendors. As reported in Part II, Item 9A of the Company's Annual Report on 10-K for the fiscal year ended December 31, 2020, management concluded that the material weakness was remediated during the fourth quarter of 2020 and that, as of December 31, 2020, its internal control over financial reporting was effective.

During the fiscal years ended December 31, 2019 and 2020 and the subsequent interim period through March 15, 2021, neither the Company nor anyone on its behalf consulted with Ernst & Young LLP with respect to (a) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's consolidated financial statements, and neither a written report nor oral advice was provided to the Company that Ernst & Young concluded was an important factor considered by the Company in reaching a decision as to any accounting, auditing or

financial reporting issue, or (b) any matter that was either the subject of a “disagreement” (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) or a “reportable event” (as described in Item 304(a)(1)(v) of Regulation S-K).

Audit, Audit-Related, Tax and All Other Fees

The table below sets forth the aggregate fees billed to us for services related to the fiscal years ended December 31, 2020 and 2019 by BDO USA, LLP, our former independent registered public accounting firm.

| | Year Ended December 31, | |
|---------------------------|----------------------------|------------------|
| | 2020 | 2019 |
| Audit Fees ⁽¹⁾ | \$352,285 | \$356,530 |
| Audit-Related Fees | — | — |
| Tax Fees | — | — |
| All Other Fees | — | — |
| Total | \$352,285 | \$356,530 |

- (1) Audit fees consisted of audit services performed in connection with the audit of the Company’s financial statements, the reviews of the Company’s interim financial statements, and related services that are normally provided in connection with registration statements. Included in the 2020 audit fees are \$80,250 of fees billed in connection with our follow-on offerings completed in February 2020 and July 2020. Included in the 2019 audit fees are \$128,605 of fees billed in connection with services related to our follow-on offering completed in September 2019 and our At-the-market program.

Pre-Approval Policies and Procedures

Consistent with SEC policies and guidelines regarding audit independence, the audit committee is responsible for the pre-approval of all audit and permissible non-audit services provided by our independent registered public accounting firm on a case-by-case basis. Our audit committee has established a policy regarding approval of all audit and permissible non-audit services provided by our principal accountants. No non-audit services were performed by our independent registered public accounting firm during the years ended December 31, 2020 and 2019. Our audit committee pre-approves these services by category and service. Our audit committee has pre-approved all of the services provided by BDO USA, LLP.

Board Recommendation

The Board of Directors unanimously recommends a vote “**FOR**” the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for 2021.

Audit Committee Report

The audit committee operates pursuant to a charter which is reviewed annually by the audit committee.

Additionally, a brief description of the primary responsibilities of the audit committee is included in this Proxy Statement under the discussion of “Corporate Governance — Audit Committee.” Under the audit committee charter, management is responsible for the preparation, presentation and integrity of the Company’s financial statements, for the appropriateness of accounting principles and financial reporting policies and for establishing and maintaining our internal control over financial reporting. The independent registered public accounting firm is responsible for auditing our financial statements and expressing an opinion as to their conformity with accounting principles generally accepted in the United States.

In the performance of its oversight function, the audit committee reviewed and discussed with management and BDO USA, LLP, as the Company’s independent registered public accounting firm for the fiscal year ended December 31, 2020, the Company’s audited financial statements for the fiscal year ended December 31, 2020. The audit committee also discussed with the Company’s independent registered public accounting firm the matters required to be discussed by applicable standards of the Public Company Accounting

Oversight Board (the “PCAOB”) and the SEC. In addition, the audit committee received and reviewed the written disclosures and the letters from the Company’s independent registered public accounting firm required by applicable requirements of the PCAOB, regarding such independent registered public accounting firm’s communications with the audit committee concerning independence, and discussed with the Company’s independent registered public accounting firm their independence from the Company.

Based upon the review and discussions described in the preceding paragraph, the audit committee recommended to the Board that the Company’s audited financial statements be included in its Annual Report on Form 10-K for the fiscal year ended December 31, 2020 filed with the SEC.

Submitted by the Audit Committee of the Company’s Board of Directors:

Sandeep Laumas, M.D. (Chair)

Peter Mueller, Ph.D.

Michal Votruba, M.D., Ph.D.

PROPOSAL NO. 3 — APPROVAL OF AN AMENDMENT TO THE COMPANY’S AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO AUTHORIZE ADDITIONAL SHARES OF COMMON STOCK

Our Amended and Restated Certificate of Incorporation currently authorizes the issuance of 50,000,000 shares of common stock, par value \$0.001 per share. On April 8, 2021, our Board adopted a resolution to amend the Amended and Restated Certificate of Incorporation, subject to stockholder approval, by increasing the number of authorized shares of our common stock to 100,000,000 shares (the “Share Increase Amendment”). The additional 50,000,000 shares of common stock authorized for issuance pursuant to the proposed Share Increase Amendment would be part of the existing class of common stock and, if and when issued, would have the same rights and privileges as the shares of common stock presently issued and outstanding. The holders of common stock are not entitled to preemptive rights or cumulative voting.

The Share Increase Amendment will not affect the number of authorized shares of preferred stock of the Company, par value \$0.001 per share, which is 10,000,000 shares. Currently, there are no shares of preferred stock issued and outstanding.

If our stockholders approve this proposal, then the first sentence of Article FOURTH of our Amended and Restated Certificate of Incorporation will be deleted and replaced in its entirety to read as follows:

“The total number of shares of capital stock that the Corporation shall have authority to issue is 110,000,000 shares, consisting of 100,000,000 shares of common stock, par value \$0.001 per share (the “Common Stock”), and 10,000,000 shares of preferred stock, par value \$0.001 per share (the “Preferred Stock”).”

Purpose of Share Increase Amendment

Our Board believes it is in the best interests of the Company and our stockholders to increase our authorized shares of common stock in order to have additional shares available for use as our Board deems appropriate or necessary. As such, the primary purpose of the Share Increase Amendment is to provide the Company with greater flexibility with respect to managing its common stock in connection with such corporate purposes as may, from time to time, be considered advisable by our Board. These corporate purposes could include, without limitation, financing activities, public or private offerings, stock dividends or splits, conversions of convertible securities, issuance of options and other equity awards pursuant to our incentive plans, establishing a strategic relationship with a corporate partner and acquisition transactions. Having an increased number of authorized but unissued shares of common stock would allow us to take prompt action with respect to corporate opportunities that develop, without the delay and expense of convening a special meeting of stockholders for the purpose of approving an increase in our capitalization. Our Board will determine whether, when and on what terms the issuance of shares of common stock may be warranted in connection with any of the foregoing purposes.

Effect of Approval of Proposed Amendment

The following table illustrates the effect the proposed Share Increase Amendment would have on the number of shares of common stock available for issuance, if approved by our stockholders:

| | As of April 12, 2021 | Upon Effectiveness of Amendment |
|---|-------------------------|---------------------------------------|
| TOTAL AUTHORIZED SHARES OF COMMON STOCK | 50,000,000 | 100,000,000 |
| Outstanding shares of common stock | 24,631,573 | 24,631,573 |
| Shares of common stock authorized for future issuance under the Company's incentive plans | 628,467 | 628,467 |
| Shares of common stock authorized for future issuance under the Company's employee stock purchase plan | 344,172 | 344,172 |
| Shares of common stock subject to outstanding equity awards under the Company's incentive plans | 4,090,078 | 4,090,078 |
| Shares of common stock subject to outstanding options under the Company's employee stock purchase plan | — | — |
| TOTAL OUTSTANDING SHARES OF COMMON STOCK, SHARES OF COMMON STOCK SUBJECT TO OUTSTANDING EQUITY AWARDS AND OPTIONS, AND SHARES OF COMMON STOCK AUTHORIZED FOR FUTURE ISSUANCE UNDER THE COMPANY'S INCENTIVE AND EMPLOYEE STOCK PURCHASE PLANS | 29,694,290 | 29,694,290 |
| SHARES OF COMMON STOCK AVAILABLE FOR ISSUANCE | 20,305,710 | 70,305,710 |

Other than shares that will be reserved for issuance under our existing incentive plans and employee stock purchase plan, we do not currently have any arrangements, agreements or understandings that would require the issuance of additional shares of common stock. Because our directors and executive officers have outstanding equity awards under our incentive plans, and may be granted additional equity awards under these plans, they may be deemed to have an indirect interest in the Share Increase Amendment because, absent the amendment, the Company may not have sufficient authorized shares to make future awards.

The Share Increase Amendment will not have any immediate effect on the rights of existing stockholders. However, our Board will have the authority to issue authorized common stock without requiring future stockholder approval of such issuances, except as may be required by applicable law or rules of the Nasdaq Stock Market. Future issuances of common stock or securities convertible into or exchangeable for common stock could have a dilutive effect on our earnings per share, book value per share and the voting power and interest of current stockholders.

If the Share Increase Amendment is approved by stockholders, all other sections of the Amended and Restated Certificate of Incorporation would be maintained in their current form. The Share Increase Amendment would become effective upon the filing of a Certificate of Amendment to our Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware, which the Company would do promptly after the Annual Meeting. In the event that the Share Increase Amendment is not approved by our stockholders at the Annual Meeting, the current Amended and Restated Certificate of Incorporation would remain in effect in its entirety. Our Board reserves the right, notwithstanding stockholder approval of the Share Increase Amendment and without further action by our stockholders, not to proceed with the Share Increase Amendment at any time before it becomes effective.

Potential Anti-Takeover Effect

Our Board has not proposed the Share Increase Amendment with the intention of discouraging tender offers or takeover attempts of the Company. However, the availability of additional authorized shares for issuance could, under certain circumstances, discourage or make more difficult efforts to obtain control of our company. This proposal is not being presented with the intent that it be used to prevent or discourage any acquisition attempt, but nothing would prevent our Board from taking any appropriate actions not

inconsistent with its fiduciary duties. We do not have a poison pill plan and have not made any non-shareholder approved repricings of our equity awards.

Dissenters' Rights of Appraisal

Under Delaware law, stockholders are not entitled to appraisal rights with respect to the Share Increase Amendment, and we will not independently provide our stockholders with any such right.

Board Recommendation

The Board of Directors unanimously recommends a vote "**FOR**" the approval of the amendment of the Company's Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock of the Company from 50,000,000 to 100,000,000.

PROPOSAL FOUR—APPROVAL OF AN ADJOURNMENT OF THE ANNUAL MEETING

Our stockholders are being asked to consider and vote upon an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes at the time of the Annual Meeting to approve Proposal 3.

Board Recommendation

The Board of Directors unanimously recommends a vote “**FOR**” the adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes at the time of the Annual Meeting to approve Proposal 3.

EXECUTIVE OFFICERS

The table below identifies and sets forth certain biographical and other information regarding our executive officers as of April 14, 2021. There are no family relationships among any of our executive officers or directors.

| <u>Executive Officer</u> | <u>Age</u> | <u>Position</u> | <u>In Current Position Since</u> |
|----------------------------|------------|--|----------------------------------|
| Vimal Mehta | 60 | Chief Executive Officer and President, and Director | 2017 |
| Richard Steinhart | 64 | Senior Vice President and Chief Financial Officer | 2017 |
| Reina Benabou, M.D., Ph.D. | 57 | Senior Vice President and Chief Development Officer | 2020 |
| William P. Kane, Jr. | 59 | Executive Vice President and Chief Commercial Officer | 2020 |
| Vincent O'Neill, M.D. | 52 | Senior Vice President and Chief Medical Officer | 2017 |
| Javier Rodriguez | 49 | Senior Vice President, Chief Legal Officer and Corporate Secretary | 2021 |
| Frank Yocca, Ph.D. | 65 | Senior Vice President and Chief Scientific Officer | 2017 |

See page 9 of this Proxy Statement for Vimal Mehta's biography.

Richard I. Steinhart has served as our Senior Vice President and Chief Financial Officer since March 2018. From October 2017 to March 2018, Mr. Steinhart served as our Vice President and Chief Financial Officer. From October 2015 to June 2017 he was Vice President and CFO at Remedy Pharmaceuticals, Inc. From January 2014 to September 2015 Mr. Steinhart worked as a financial and strategic consultant to the biotechnology and medical device industries. From April 2006 through December 2013, Mr. Steinhart was employed by MELA Sciences, Inc., as their Vice President, Finance and Chief Financial Officer, Treasurer and Secretary from April 2006 to April 2012 and as Sr. Vice President, Finance and Chief Financial Officer from April 2012 to December 2013. From May 1992 until joining MELA Sciences, Mr. Steinhart was a Managing Director of Forest Street Capital/SAE Ventures, a boutique investment banking, venture capital, and management consulting firm focused on healthcare and technology companies. Prior to Forest Street Capital/SAE Ventures, he was Vice President and Chief Financial Officer of Emisphere Technologies, Inc. Mr. Steinhart's other experience includes seven years at CW Group, Inc., a venture capital firm focused on medical technology and biopharmaceutical companies, where he was a General Partner and Chief Financial Officer. Mr. Steinhart is a member of the Board of Directors of Actinium Pharmaceuticals, Inc., a position he assumed in November 2013, and Atossa Genetics, Inc., where he began his service in March 2014. Mr. Steinhart serves as the Chairman of the Audit Committee at Actinium Pharmaceuticals, where he also sits on the Corporate Governance Committees. Mr. Steinhart serves as the Chairman of Atossa Genetics Audit Committee and is a member of its Compensation Committee. He holds B.B.A. and M.B.A. degrees from Pace University and is a Certified Public Accountant (inactive).

Frank D. Yocca, Ph.D. has served as our Senior Vice President and Chief Scientific Officer since March 2018. From June 2017 to March 2018, Dr. Yocca served as our Vice President and Chief Scientific Officer. From April 2015 to April 2017, he was Senior Vice President, CNS R&D of BioXcel. From 2005 to 2015, Dr. Yocca held multiple leadership roles at AstraZeneca plc, including Vice President, Strategy and Externalization, Neuroscience Virtual Innovative Medicine Unit (iMed) (2011-2015), Vice President and Head, Strategy Unit, CNS and Pain Innovative Medicine Unit (iMed) (2010 to 2011) and Vice President and Head, CNS Pain Discovery (2005 to 2010). Prior to this he was Executive Director at the Bristol Myers Squibb Pharmaceutical Research Institute from 1984 to 2004 where he served concurrent leadership responsibilities within the Neuroscience Clinical Group for Early and Late Clinical Development Studies. Prior to this Dr. Yocca served as Executive Director, Neuroscience Discovery from 1997 to 2003, where he was a collaborator in the development and implementation of corporate strategic plans and leader for the Neuroscience Biology Department in the discovery of psychiatry and Alzheimer's clinical candidates. He was a core member of the Abilify Product Development and Commercialization Team from 1999 to 2002 and a core member of the Early and Late Discovery and Development Teams from 1984 to 2001. Dr. Yocca holds a B.S. in biochemistry from Manhattan College and an M.S. in pharmacology and a Ph.D. in neuropharmacology for St. John's University.

Vincent J. O'Neill, M.D. has served as our Senior Vice President and Chief Medical Officer since March 2018. From July 2017 to March 2018, Dr. O'Neill served as our Vice President and Chief Medical Officer. He served as the Chief Medical Officer of Mirna Therapeutics, Inc. from April 2016 to May 2017. From June 2014 to May 2016, he served as the Chief Medical Officer of Exosome Diagnostics, Inc., a diagnostics company. From 2012 to 2014, Dr. O'Neill was global head Personalized of Medicine and Companion Diagnostics at Sanofi S.A., a pharmaceutical company. From 2009 to 2012, Dr. O'Neill served as Group Director at Genentech, Inc. where he was involved in the expanded approval of products such as Avastin and Tarceva. From 2006 to 2009, Dr. O'Neill served as Director, Discovery Medicine at GlaxoSmithkline plc. Dr. O'Neill holds an M.D., M.B.ChD and M.Sc. in Pathology from the University of Glasgow, UK.

William P. Kane, Jr. has served as our Executive Vice President and Chief Commercial Officer since June 2020. He previously served in multiple leadership roles at Allergan plc, including as Senior Vice President, U.S. General Medicine from January 2017 to May 2020, a multi-therapeutic portfolio with \$5.8 billion in 2019 sales, where he oversaw more than 2,000 sales and marketing professionals. Mr. Kane also served as Vice President, Internal Medicine Brands from July 2014 to December 2016 and Vice President, CNS Marketing from October 2013 to June 2014. Mr. Kane has also held senior level commercial positions at leading biopharma companies Pfizer, and Sepracor (now Sunovion Pharmaceuticals). Mr. Kane was an integral part of launching numerous successful brands, including CELEBREX[®] for the treatment of arthritis, NAMZARIC[®] for Alzheimer's disease, VRAYLAR[®] for the treatment of schizophrenia and bipolar disorder, and UBRELVY[™], the first oral calcitonin gene-related peptide (CGRP) for the acute treatment of migraine. Mr. Kane holds a B.A. in Government from Connecticut College and an M.B.A. from the Wharton School at the University of Pennsylvania.

Reina Benabou, M.D., Ph.D. has served as our Senior Vice President and Chief Development Officer since June 2020. Prior to her current role, Dr. Benabou held numerous leadership roles at leading biopharma companies, including as Senior Vice President & Chief Medical Officer of Cognivue, Inc. from 2018 to 2020, as Vice President & World Wide Medical Neuroscience Franchise Head, Global Medical Communications & Information Head for Novartis Pharma AG from 2014 to 2016, Head of Global Medical Product Evaluation of Pfizer Inc. from 2012 to 2013 and Head of Medical Affairs in the Emerging Markets for Pfizer Inc. from 2009 to 2012. She has built and led a variety of U.S. and global high performing development, medical, regulatory and safety teams responsible for the commercialization of multiple products, including SUBOXONE[®] for the treatment of opioid drug addiction, GEODON[®] for the treatment of schizophrenia and manic symptoms of bipolar disorder, LYRICA[®] for the treatment of neuropathic pain in diabetes, fibromyalgia and SCI and to control seizures, and GILENYA[®] for the treatment of relapsing forms of multiple sclerosis. Dr. Benabou previously held academic appointments in the Neurology Departments of Mount Sinai School of Medicine and Columbia University in New York. She holds an M.D. from the Universidade de São Paulo and a Ph.D. in Neurological Sciences from the University of Montreal, Canada.

Javier Rodriguez has served as our Senior Vice President and Chief Legal Officer and Corporate Secretary since January 2021. Javier has over 20 years of extensive strategic and legal experience within the biopharmaceutical industry and has broad leadership experience managing legal, compliance, corporate governance, intellectual property, data privacy, and government affairs professionals. Prior to joining BioXcel Therapeutics, he was Chief Legal Officer at Indivior PLC (LSE: INDV), a global pharmaceuticals company with operations in over 40 countries, from December 2014 to December 2020, where he oversaw all legal affairs, data privacy compliance, and corporate governance matters. Before taking on his role at Indivior, Javier was General Counsel at Reckitt Benckiser Pharmaceuticals Inc. where he played a key leadership role in negotiating and successfully effectuating the demerger and spin-off of the organization in 2014, which included closing a \$750 million secured term loan and \$50 million revolving credit facility to fund on-going operations of the demerged entity. Earlier in his career, Javier held roles of increasing responsibility at Reckitt Benckiser LLC, Bayer Healthcare Pharmaceuticals, Inc. and Berlex, Inc. He began his legal career in 2000 as a litigation associate at Thelen Reid & Priest, LLP in New York City. He holds a B.S. in Civil Engineering from Rutgers University, a M.S.E. in Structural Engineering from the University of Michigan and a J.D. from the University of Pennsylvania.

CORPORATE GOVERNANCE

Corporate Governance Guidelines

Our Board of Directors has adopted Corporate Governance Guidelines. A copy of these Corporate Governance Guidelines can be found in the “Governance — Governance Documents” section of the “Investors” page of our website located at www.bioxceltherapeutics.com, or by writing to our Corporate Secretary at our offices at 555 Long Wharf Drive, New Haven, CT 06511. Among the topics addressed in our Corporate Governance Guidelines are:

- Board size, independence and qualifications
- Executive sessions of independent directors
- Board leadership structure
- Director qualifications and selection of new directors
- Director orientation and continuing education
- Limits on board service
- Change of principal occupation
- Term limits
- Director responsibilities
- Director compensation
- Stock ownership
- Conflicts of Interest
- Interaction with investors, the press and customers
- Board access to senior management
- Board access to independent advisors
- Board and committee self-evaluations
- Board meetings
- Director attendance
- Meeting materials
- Board committees, responsibilities and independence
- Succession planning
- Risk management

Board Leadership Structure

Our Corporate Governance Guidelines provide our Board of Directors with flexibility to combine or separate the positions of Chairperson of the Board and Chief Executive Officer in accordance with its determination that utilizing one or the other structure would be in the best interests of the Company and its stockholders. If the Chairperson of the Board is a member of management or does not otherwise qualify as independent, our Corporate Governance Guidelines provide for the appointment by the independent directors of a lead independent director (the “Lead Director”). The Lead Director’s responsibilities include, but are not limited to: presiding over all meetings of the Board at which the Chairperson of the Board is not present, including any executive sessions of the independent directors; approving Board meeting schedules and agendas; and acting as the liaison between the independent directors and the Chief Executive Officer and Chairperson of the Board. Our Corporate Governance Guidelines provide that, at such times as the Chairperson of the Board qualifies as independent, the Chairperson of the Board will serve as Lead Director.

The positions of our Chair of the Board and our Chief Executive Officer are currently served by two separate persons. Dr. Mueller serves as Chairman of the Board, and Dr. Mehta serves as our Chief Executive Officer. In his capacity as the independent Board Chair, Dr. Mueller performs the functions of the Lead Director.

The Board believes that our current leadership structure of Chief Executive Officer and Chair of the Board being held by two separate individuals is in the best interests of the Company and its stockholders and strikes the appropriate balance between the Chief Executive Officer and President’s responsibility for the strategic direction, day-to day-leadership and performance of our Company and the Chair of the Board’s responsibility to guide overall strategic direction of our Company and provide oversight of our corporate governance and guidance to our Chief Executive Officer and President and to set the agenda for and preside over Board meetings. We recognize that different leadership structures may be appropriate for companies in different situations and believe that no one structure is suitable for all companies. Accordingly, the Board will continue to periodically review our leadership structure and make such changes in the future as it deems appropriate and in the best interests of the Company and its stockholders.

Director Independence

Under our Corporate Governance Guidelines and Nasdaq rules, a director is independent if he or she does not have a material or other disqualifying relationship with us that could compromise his or her ability to

exercise independent judgment in carrying out his or her responsibilities as a director. In addition, the director must meet the bright-line tests for independence set forth by the Nasdaq rules.

Our Board has undertaken a review of its composition, the composition of its committees and the independence of our directors and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our Board of Directors has determined that none of Ms. Bray or Drs. Laumas, Mueller or Votruba, representing four of our six directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors qualifies as “independent” as that term is defined under the Nasdaq rules. In making these determinations, our Board of Directors considered the relationships that each non-employee director has with us and all other facts and circumstances our Board of Directors deemed relevant in determining their independence, including the director’s beneficial ownership of our common stock and the relationships of our non-employee directors with certain of our significant stockholders.

Board Committees

Our Board of Directors has three standing committees: an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and the responsibilities described below. In addition, from time to time, special committees may be established under the direction of our Board when necessary to address specific issues. Each of the audit committee, the compensation committee and the nominating and corporate governance committee operates under a written charter which are available in the “Governance — Governance Documents” section of the “Investors” page of our website located at www.bioxceltherapeutics.com.

| Director | Audit Committee | Compensation Committee | Nominating and Corporate Governance Committee |
|-----------------------------|-----------------|------------------------|---|
| June Bray | — | — | X |
| Sandeep Laumas, M.D. | Chair | X | X |
| Peter Mueller, Ph.D. | X | Chair | Chair |
| Michal Votruba, M.D., Ph.D. | X | — | — |

Audit Committee

Our audit committee is responsible for, among other things:

- appointing, approving the compensation of, and assessing the independence of, our registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing our annual and quarterly financial statements and related disclosures with management and our independent registered public accounting firm;
- considering whether to recommend to the Board that the Company’s audited financial statements be included in the Company’s Annual Report on Form 10-K;
- coordinating our Board’s oversight of our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- discussing our risk management policies;
- meeting independently with our internal auditors, if any, independent registered public accounting firm and management;
- reviewing on a periodic basis our investment policy;

- reviewing and approving or ratifying any related person transactions; and
- pre-approving all audit and non-audit services provided to us by our independent auditor (other than those provided pursuant to appropriate preapproval policies established by the committee or exempt from such requirement under SEC rules);
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters, and for the confidential and anonymous submission by our employees of concerns regarding questionable accounting or auditing matters; and
- preparing the audit committee report required by SEC rules.

The current members of our audit committee are Peter Mueller, Sandeep Laumas and Michal Votruba, with Dr. Laumas serving as chair. All members of our audit committee meet the requirements for financial literacy under the applicable Nasdaq rules and regulations. Our Board of Directors has affirmatively determined that each member of our audit committee qualifies as “independent” under Nasdaq’s additional standards applicable to audit committee members and Rule 10A-3 of the Exchange Act of 1934, as amended (the “Exchange Act”) applicable to audit committee members. In addition, our Board of Directors has determined that Dr. Laumas qualifies as an “audit committee financial expert,” as such term is defined in Item 407(d)(5) of Regulation S-K.

Compensation Committee

Our compensation committee is responsible for, among other things:

- reviewing and approving, or recommending for approval by the board of directors, the compensation of our Chief Executive Officer and our other executive officers;
- periodically reviewing and approving new compensation and employee benefit plans and reviewing and approving changes to existing compensation and employee benefit plans, in each case that are not subject to stockholder approval or approval of the Board;
- overseeing and administering our equity incentive plans;
- periodically reviewing and making recommendations to our board of directors with respect to director compensation;
- reviewing and discussing annually with management our “Compensation Discussion and Analysis,” to the extent required; and
- preparing the annual compensation committee report required by SEC rules, to the extent required.

The current members of our compensation committee are Peter Mueller and Sandeep Laumas, with Dr. Mueller serving as chair. Our Board has determined that each member of our compensation committee qualifies as “independent” under Nasdaq’s additional standards applicable to compensation committee members and is a “non-employee director” as defined in Section 16b-3 of the Exchange Act.

The compensation committee generally considers the Chief Executive Officer’s recommendations when making decisions regarding the compensation of non-employee directors and executive officers (other than the Chief Executive Officer). Pursuant to the compensation committee’s charter, the compensation committee has the authority to retain or obtain the advice of compensation consultants, legal counsel and other advisors to assist in carrying out its responsibilities. Before selecting any such consultant, counsel or advisor, the compensation committee reviews and considers the independence of such consultant, counsel or advisor in accordance with applicable Nasdaq rules. We must provide appropriate funding for payment of reasonable compensation to any advisor retained by the compensation committee.

Compensation Consultants

The compensation committee has the authority under its charter to retain outside consultants or advisors, as it deems necessary or advisable. In accordance with this authority, the compensation committee. During fiscal 2020, the compensation committee engaged the services of Streeterwyatt Analytics LLC

(“Streeterwyatt”) and Radford, a part of Aon plc (“Radford”), as its independent outside compensation consultants. Streeterwyatt provided services during 2020, following which the compensation committee retained Radford as its independent outside compensation consultant.

As requested by the compensation committee, in 2020, Streeterwyatt’s services to the compensation committee included advising on new equity compensation programs and the development of the Company’s peer group and providing support and analysis regarding executive and director compensation. As requested by the compensation committee, in 2020, Radford’s services to the compensation committee included providing assistance with the development of the Company’s peer group.

All executive compensation services provided by Streeterwyatt and Radford during 2020 were conducted under the direction or authority of the compensation committee, and all work performed by Streeterwyatt and Radford were pre-approved by the compensation committee. Neither Streeterwyatt nor Radford nor any of their affiliates maintains any other direct or indirect business relationships with us or any of our subsidiaries. The compensation committee 2020 whether any work provided by Streeterwyatt or by Radford raised any conflict of interest for services performed during 2020 and determined that it did not.

Additionally, during 2020, neither Streeterwyatt nor Radford provided any services to us other than regarding executive and director compensation and broad-based plans that do not discriminate in scope, terms, or operation, in favor of our executive officers or directors, and that are available generally to all salaried employees.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee is responsible for, among other things:

- identifying individuals qualified to become members of our Board;
- recommending to our Board the persons to be nominated for election as directors and to each committee of the Board;
- developing and recommending to our Board corporate governance guidelines, and reviewing and recommending to our board of directors proposed changes to our corporate governance guidelines from time to time; and
- overseeing a periodic evaluation of our Board.

The current members of our nominating and corporate governance committee are June Bray, Sandeep Laumas and Peter Mueller, with Peter Mueller serving as chair. Our Board has determined that each of Ms. Bray and Drs. Laumas and Mueller qualifies as “independent” under applicable Nasdaq rules applicable to nominating and corporate governance committee members. Vimal Mehta served on the nominating and corporate governance committee during 2020. We ceased to qualify as a “controlled company” under the Nasdaq rules as of February 24, 2020 and were permitted a one-year phase-in within which all members of the nominating and corporate governance committee qualify as independent. Our nominating and corporate governance committee was composed solely of directors who qualified as “independent” under applicable Nasdaq rules as of and following February 24, 2021.

Board and Board Committee Meetings and Attendance

During fiscal 2020, our Board of Directors met seven times, the audit committee met seven times, the compensation committee met three times and the nominating and corporate governance committee met twice. In 2020, each of our directors attended at least 75% of the meetings of the Board and committees on which he or she served as a member..

Executive Sessions

Executive sessions, which are meetings of the non-management members of the Board, are regularly scheduled throughout the year. In addition, at least twice per year, the independent directors meet in a private session that excludes management and any non-independent directors. The Chair of the Board

presides at each of these meetings and, in his absence, the non-management and independent directors in attendance, as applicable, determine which member will preside at such session.

Director Attendance at Annual Meeting of Stockholders

We do not have a formal policy regarding the attendance of our Board members at our annual meetings of stockholders, but we expect all directors to make every effort to attend any meeting of stockholders. Two of our directors attended our annual meeting of stockholders held in 2020.

Director Nominations Process

The nominating and corporate governance committee is responsible for recommending candidates to serve on the Board and its committees. In considering whether to recommend any particular candidate to serve on the Board or its committees or for inclusion in the Board's slate of recommended director nominees for election at the annual meeting of stockholders, the nominating and corporate governance committee considers the criteria set forth in our Corporate Governance Guidelines. Specifically, the nominating and corporate governance committee may take into account many factors, including personal and professional integrity; ethics and values; experience in corporate management, such as serving as an officer or former officer of a publicly held company; strong finance experience; relevant social policy concerns; experience relevant to the Company's industry; experience as a board member or executive officer of another publicly held company; relevant academic expertise or other proficiency in an area of the Company's operations; diversity of expertise and experience in substantive matters pertaining to the Company's business relative to other board members; diversity of background and perspective, including, but not limited to, with respect to age, gender, race, place of residence and specialized experience; practical and mature business judgment, including, but not limited to, the ability to make independent analytical inquiries; and any other relevant qualifications, attributes or skills.

We consider diversity, such as gender, race, ethnicity and members of underrepresented communities, a meaningful factor in identifying director nominees and view such diversity characteristics meaningful factors to consider, but do not have a formal diversity policy. Currently, 67% of our Board self-identifies as a member of a diverse gender, racial, ethnic or underrepresented group. The Board evaluates each individual in the context of the Board as a whole, with the objective of assembling a group that has the necessary tools to perform its oversight function effectively in light of the Company's business and structure. In determining whether to recommend a director for re-election, the nominating and corporate governance committee may also consider potential conflicts of interest with the candidates, other personal and professional pursuits, the director's past attendance at meetings and participation in and contributions to the activities of the Board.

In identifying prospective director candidates, the nominating and corporate governance committee may seek referrals from other members of the Board, management, stockholders and other sources, including third party recommendations. The nominating and corporate governance committee also may, but need not, retain a third-party search firm in order to assist it in identifying candidates to serve as directors of the Company. The nominating and corporate governance committee uses the same criteria for evaluating candidates regardless of the source of the referral or recommendation. When considering director candidates, the nominating and corporate governance committee seeks individuals with backgrounds and qualities that, when combined with those of our incumbent directors, provide a blend of skills and experience to further enhance the Board's effectiveness. In connection with its annual recommendation of a slate of nominees, the nominating and corporate governance committee also may assess the contributions of those directors recommended for re-election in the context of the Board evaluation process and other perceived needs of the Board. Vimal Mehta, Ph.D., as the founder and Chief Executive Officer of the Company, was initially recommended to serve on our Board by other members of the Board and members of management. Peter Mueller, Ph.D. was initially recommended to serve on our Board by our Chief Executive Officer. In determining to nominate each director nominee at this Annual Meeting, the nominating and corporate governance committee and the Board evaluated each nominee in accordance with our standard review process for director candidates in connection with a director's initial appointment and his or her nomination for election or re-election, as applicable, at the Annual Meeting.

When considering whether the directors and nominees have the experience, qualifications, attributes and skills, taken as a whole, to enable the Board to satisfy its oversight responsibilities effectively in light of our

business and structure, the Board focused primarily on the information discussed in each of the board member's biographical information set forth above. We believe that our directors provide an appropriate mix of experience and skills relevant to the size and nature of our business. This process resulted in the Board's nomination of the incumbent directors named in this Proxy Statement and proposed for election by you at the Annual Meeting.

The nominating and corporate governance committee will consider director candidates recommended by stockholders, and such candidates will be considered and evaluated under the same criteria described above. Any recommendation submitted to the Company should be in writing and should include any supporting material the stockholder considers appropriate in support of that recommendation, but must include information that would be required under the rules of the SEC to be included in a proxy statement soliciting proxies for the election of such candidate and a written consent of the candidate to serve as one of our directors if elected and must otherwise comply with the requirements under our bylaws for stockholders to recommend director nominees. Stockholders wishing to propose a candidate for consideration may do so by submitting the above information to the attention of the Corporate Secretary, BioXcel Therapeutics, Inc., 555 Long Wharf Drive, New Haven, CT 06511. All recommendations for director nominations received by the Corporate Secretary that satisfy our by-law requirements relating to such director nominations will be presented to the nominating and corporate governance committee for its consideration. Stockholders also must satisfy the notification, timeliness, consent and information requirements set forth in our bylaws. These timing requirements are also described under the caption "Stockholder Proposals and Director Nominations."

Board Role in Risk Oversight

The Board of Directors has overall responsibility for risk oversight, including, as part of regular Board and committee meetings, general oversight of executives' management of risks relevant to the Company. A fundamental part of risk oversight is not only understanding the material risks a company faces and the steps management is taking to manage those risks, but also understanding what level of risk is appropriate for the Company. The involvement of the Board of Directors in reviewing our business strategy is an integral aspect of the Board's assessment of management's tolerance for risk and its determination of what constitutes an appropriate level of risk for the Company. While the full Board has overall responsibility for risk oversight, it is supported in this function by its audit committee, compensation committee and nominating and corporate governance committee. Each of the committees regularly reports to the Board.

The audit committee assists the Board in fulfilling its risk oversight responsibilities by periodically reviewing our accounting, reporting and financial practices, including the integrity of our financial statements, the surveillance of administrative and financial controls, our compliance with legal and regulatory requirements, and our enterprise risk management program. Through its regular meetings with management, including the finance, legal, internal audit, tax, compliance, and information technology functions, the audit committee reviews and discusses significant areas of our business and summarizes for the Board areas of risk and the appropriate mitigating factors. The compensation committee assists the Board by overseeing and evaluating risks related to the Company's compensation structure and compensation programs, including the formulation, administration and regulatory compliance with respect to compensation matters, and coordinating, along with the Board's Chair, succession planning discussions. The nominating and corporate governance committee assists the Board by overseeing and evaluating programs and risks associated with Board organization, membership and structure, and corporate governance. In addition, our Board receives periodic detailed operating performance reviews from management.

Committee Charters and Corporate Governance Guidelines

Our Corporate Governance Guidelines, charters of the audit committee, compensation committee and nominating and corporate governance committee and other corporate governance information are available under the Corporate Governance section of the Investors page of our website located at www.bioxceltherapeutics.com, or by writing to our Corporate Secretary at our offices at 555 Long Wharf Drive, New Haven, CT 06511.

Code of Business Conduct and Ethics

We have adopted a code of business conduct and ethics (the "Code of Conduct") that applies to all of our directors, officers and employees, including our principal executive officer, principal financial officer, principal

accounting officer or controller or persons performing similar functions. A copy of our Code of Business Conduct and Ethics is available under the “Governance — Governance Documents” section of the Investors page of our website located at www.bioxceltherapeutics.com, or by writing to our Corporate Secretary at our offices at 555 Long Wharf Drive, New Haven, CT 06511. We intend to make any required disclosures regarding amendments to, or waivers of, provisions of our Code of Conduct on our website rather than by filing a Current Report on Form 8-K.

Anti-Hedging Policy

Our Board of Directors has adopted an Insider Trading Compliance Policy, which applies to all of our directors, officers and employees. The policy prohibits our directors, officers and employees from purchasing financial instruments, such as prepaid variable forward contracts, equity swaps, collars, and exchange funds, or otherwise engaging in transactions that hedge or offset, or are designed to hedge or offset, any decrease in the market value of our equity securities. All such transactions involving our equity securities, whether such securities were granted as compensation or are otherwise held, directly or indirectly, are prohibited.

Communications with the Board

Any stockholder or any other interested party who desires to communicate with our Board of Directors, our non-management directors or any specified individual director, may do so by directing such correspondence to the attention of the Corporate Secretary, BioXcel Therapeutics, Inc., 555 Long Wharf Drive, New Haven, CT 06511. The Corporate Secretary will forward the communication to the appropriate director or directors as appropriate.

Compensation Committee Interlocks and Insider Participation

During the 2020 fiscal year, the members of our compensation committee were Drs. Laumas and Mueller, neither of whom was, during the fiscal year, an officer or employee of the Company and neither of whom was formerly an officer of the Company. During 2020, none of our executive officers served as a member of the board of directors or compensation committee (or other committee performing equivalent functions) of any entity that had one or more executive officers serving on our Board or compensation committee. During the fiscal year ended December 31, 2020, no other relationships required to be disclosed by the rules of the SEC existed aside from those identified herein.

EXECUTIVE COMPENSATION

The following is a discussion of the compensation arrangements of our named executive officers (“NEOs”). As an “emerging growth company” as defined in the JOBS Act, we are not required to include a Compensation Discussion and Analysis section and have elected to comply with the scaled disclosure requirements applicable to emerging growth companies.

Our NEOs include our principal executive officer and our two most highly compensated executive officers, other than our principal executive officer, for the fiscal year ended December 31, 2020. These NEOs and their positions are:

- Vimal Mehta, Ph.D., our Chief Executive Officer and President;
- William P. Kane, Jr., our Executive Vice President and Chief Commercial Officer; and
- Reina Benabou, M.D., Ph.D., our Senior Vice President and Chief Development Officer.

Summary Compensation Table

The following table shows information regarding the compensation of our NEOs for the years presented.

| Name and Principal Position | Year | Salary (\$) | Bonus (\$) | Option Awards (\$) ⁽¹⁾ | Non-Equity Incentive Plan Compensation (\$) ⁽²⁾ | All Other Compensation (\$) ⁽³⁾ | Total (\$) |
|--|------|------------------------|------------|-----------------------------------|--|--|------------|
| Vimal Mehta, Ph.D. | 2020 | 890,000 | — | 8,122,500 | 556,250 | 7,800 | 9,576,550 |
| <i>Chief Executive Officer and President</i> | 2019 | 459,000 | — | 1,269,131 | 233,000 | 7,800 | 1,968,931 |
| William P. Kane, Jr. | 2020 | 245,455 ⁽⁴⁾ | — | 4,185,500 | 138,699 | — | 4,569,654 |
| <i>Executive Vice President and Chief Commercial Officer</i> | | | | | | | |
| Reina Benabou, M.D., Ph.D. | 2020 | 197,443 ⁽⁵⁾ | — | 2,462,400 | 76,341 | — | 2,736,184 |
| <i>Senior Vice President and Chief Development Officer</i> | | | | | | | |

(1) The amounts reported represent the grant date fair value of stock options granted to our NEOs as computed in accordance with Accounting Standards Codification 718, Compensation — Stock Compensation (ASC 718). Note that the amounts reported in this column reflect the accounting cost for these stock options and do not correspond to the actual economic value that may be received by our NEOs from the options. We provided information regarding the assumptions used to calculate the value of the option awards in Note 10 to our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2020.

(2) The amounts reported represent annual cash bonuses earned for 2020 and paid in 2021. For additional information, see “2020 Annual Bonuses” below.

(3) The amount reported for 2020 represents reimbursement for healthcare benefits for Dr. Mehta.

(4) Mr. Kane’s employment with the Company commenced on June 15, 2020. Mr. Kane’s annualized base salary for 2020 was \$450,000.

(5) Dr. Benabou’s employment with the Company commenced on June 22, 2020. Dr. Benabou’s annualized base salary for 2020 was \$375,000.

Narrative to Summary Compensation Table

2020 Salaries

Our NEOs receive a base salary to compensate them for services rendered to the Company. The base salary payable to each NEO is intended to provide a fixed component of compensation reflecting the executive’s skill set, experience, role and responsibilities. The base salaries of our NEOs are reviewed from time to time and adjusted when our Board or compensation committee determines an adjustment is appropriate. In early 2020, the Board increased Dr. Mehta’s annual base salary based on an evaluation of chief executive officer compensation for comparable companies in our industry. The base salaries of Mr. Kane and Dr. Benabou

were negotiated in connection with their commencing employment with us in June 2020. The 2020 base salaries for each of our NEOs were as follows: Dr. Mehta, \$890,000; Mr. Kane, \$450,000, and Dr. Benabou, \$375,000.

2020 Annual Bonuses

We offer our NEOs the opportunity to earn annual cash bonuses to compensate them for attaining company and individual performance goals. Each NEO's target bonus opportunity is expressed as a percentage of annual base salary. The 2020 annual bonuses for Dr. Mehta, Mr. Kane and Dr. Benabou were targeted at 50%, 45% and 35% of their respective base salaries.

The performance goals for annual bonuses are reviewed and approved annually by the compensation committee. For 2020, our NEOs were eligible to earn annual bonuses based on the achievement of certain company performance goals, which generally related to clinical trial performance, completing certain financial and operational objectives, as well as an assessment of individual performance. In March 2021, the Board approved the 2020 annual bonuses for the NEOs following an assessment of the NEOs' individual performance and the Company's achievement against company performance goals. The actual annual cash bonuses awarded to each NEO for 2020 performance are set forth above in the Summary Compensation Table in the column entitled "Non-Equity Incentive Plan Compensation."

Equity Compensation

We award stock options to our employees, including our NEOs, as the long-term incentive component of our compensation program. We typically grant stock options at such times as our Board determines appropriate. Generally, stock options vest over four years with 25% of the shares subject to the option vesting on the first anniversary of the date of grant and the remaining 75% of the shares subject to the option vesting in substantially equal monthly installments over the following thirty-six months, subject to the holder's continued employment with us through the applicable vesting date. Refer to the "Outstanding Equity Awards at Year End" table below for information regarding the stock options we granted to our NEOs during 2020.

Other Elements of Compensation

Our NEOs are eligible to participate in our employee benefit plans and programs, which generally include medical, dental and vision benefits, and life, short-term, and long-term disability insurance to the same extent as our other full-time employees generally, subject to the terms and eligibility requirements of those plans. During 2020, we reimbursed Dr. Mehta for his healthcare premium payments, which reimbursement amounts are set forth in the Summary Compensation Table in the column entitled "All Other Compensation." None of our other NEOs received any special benefits or executive perquisites during 2020.

Outstanding Equity Awards at Year End

The following table sets forth all outstanding equity awards held by each of the NEOs as of December 31, 2020.

| Name | Vesting Commencement Date | Option Awards | | Option Exercise Price (\$) | Option Expiration Date |
|----------------------------|---------------------------|---|---|----------------------------|------------------------|
| | | Number of Securities Underlying Unexercised Options Exercisable (#) | Number of Securities Underlying Unexercised Options Unexercisable (#) | | |
| Vimal Mehta, Ph.D. | 08/23/2017 | 474,000 | — | 0.41 | 08/23/2027 |
| | 05/23/2019 ⁽¹⁾ | 121,223 | 66,477 | 10.04 | 05/23/2029 |
| | 05/26/2020 ⁽²⁾ | — | 250,000 | 45.99 | 05/26/2030 |
| William P. Kane, Jr | 06/15/2020 ⁽³⁾ | — | 110,000 | 52.82 | 06/15/2030 |
| Reina Benabou, M.D., Ph.D. | 06/22/2020 ⁽⁴⁾ | — | 60,000 | 56.97 | 06/22/2030 |

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- (1) On May 23, 2019, Dr. Mehta was awarded an option to purchase 187,700 shares of common stock under our 2017 Plan. The shares underlying this option vest as follows: 121,223 shares were vested as of December 31, 2020 and the remaining 66,477 shares vest monthly through May 23, 2021.
 - (2) On May 26, 2020, Dr. Mehta was awarded an option to purchase 250,000 shares of common stock under our 2020 Plan. The shares underlying this option vest as follows: 62,500 shares will vest on May 26, 2021 and the remaining 187,500 shares will vest monthly thereafter through May 26, 2024.
 - (3) On June 15, 2020, Mr. Kane was awarded an option to purchase 110,000 shares of our common stock under our 2020 Plan. The shares underlying this option vest as follows: 27,500 shares will vest on June 15, 2021 and the remaining 82,500 shares will vest monthly thereafter through June 15, 2024.
 - (4) On June 22, 2020, Dr. Benabou was awarded an option to purchase 60,000 shares of our common stock under our 2020 Plan. The shares underlying this option vest as follows: 15,000 shares will vest on June 22, 2021 and the remaining 45,000 shares will vest monthly thereafter through June 22, 2024.

Employment Arrangements

We have entered into employment agreements with each of our NEOs that set forth the terms and conditions of each executive's employment with us. Each employment agreement establishes an annual base salary and target bonus opportunity for each NEO, the current amounts of which are described above under the headings "2020 Salaries" and "2020 Annual Bonuses." The NEOs are eligible to participate in our employee benefit plans and programs for which the NEO is eligible, subject to the terms and conditions of such plans and programs.

In the event that an NEO is terminated by us without cause, or by the executive for good reason, subject to the NEO's timely execution and non-revocation of a release of claims in our favor, the executive will be eligible to receive (i) a pro-rated portion of the annual bonus for the year of termination; (ii) base salary continuation for 6 months (or 24 months for Dr. Mehta); and (iii) reimbursement for COBRA premium payments for 6 months (or up to 18 months for Dr. Mehta). In addition, Dr. Mehta would be entitled to vesting of 50% of any unvested equity awards held by him immediately prior to his termination. The Company must provide an NEO 30 days' notice in the event we terminate such NEO without cause.

The employment agreements also provide that, in the event an NEO's employment is terminated by us without cause or by the NEO for good reason, in either case, within 6 months prior to or 12 months after a change in control, then, subject to the NEO's timely execution and non-revocation of a release of claims in our favor, the NEO will be entitled to a lump sum payment equal to 6 months of base salary (or 24 months of base salary for Dr. Mehta), which payment is in addition to the severance payments and benefits described above.

The employment agreements generally define "cause" as, subject to certain notice and cure rights, the NEO's (i) material breach or material default of the employment agreement or any other agreement between us and the NEO, or repeated failure to follow the direction of the Company or our Board, as applicable; (ii) gross negligence, willful misfeasance or breach of fiduciary duty to us or our affiliates; (iii) commission of an act or omission involving fraud, embezzlement, misappropriation or dishonesty in connection with NEO's duties to us or our affiliates, or, for Mr. Kane or Dr. Benabou, that is otherwise likely to be materially injurious to the business or reputation of the Company or our affiliates; or (iv) conviction of, indictment for, or pleading guilty or nolo contendere to, any felony or other crime involving fraud or moral turpitude.

The employment agreements generally define "good reason" as, subject to certain notice and cure rights, the occurrence of any of the following (without the NEO's express written consent): (i) a significant reduction of the NEO's duties, position or responsibilities, or the removal of the NEO from such position, duties or responsibilities; (ii) the relocation of the NEO by more than 25 miles; or (iii) any action or inaction that constitutes a material breach by us or any of our successors of its obligations to the NEO under the employment agreement (or for Dr. Mehta, any other agreement between us and Dr. Mehta).

The employment agreements also contain covenants prohibiting the NEOs from competing with us or soliciting our suppliers, employees or customers during employment and for a period of one year following termination.

Equity Compensation Plan Information

The following table provides certain information with respect to the Company's equity compensation plans in effect as of December 31, 2020:

| Plan Category | Number of securities to be issued upon exercise of outstanding options, warrants and rights (a) | Weighted-average exercise price of outstanding options, warrants and rights (b) | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) ⁽⁴⁾ (c) |
|---|---|---|--|
| Equity compensation plans approved by security holders ⁽¹⁾ | 3,897,826 ⁽²⁾ | \$ 16.15 ⁽³⁾ | 258,370 |
| Equity compensation plans not approved by security holders | — | — | — |
| Total | 3,897,826 | \$ 16.15 | 258,370 |

(1) Consists of the BioXcel Therapeutics, Inc. 2017 Incentive Award Plan (the "2017 Plan"), the BioXcel Therapeutics, Inc. 2020 Incentive Award Plan (the "2020 Plan") and the BioXcel Therapeutics, Inc. 2020 Employee Stock Purchase Plan (the "2020 ESPP").

(2) Includes 2,761,926 outstanding options to purchase shares under the 2017 Plan and 1,035,900 outstanding options to purchase shares under the 2020 Plan.

(3) As of December 31, 2020, the weighted-average exercise price of outstanding options under the 2017 Plan was \$3.81 and the weighted-average exercise price of outstanding options under the 2020 Plan was \$49.06.

(4) Includes 158,370 shares available for future issuance under the 2020 Plan and 100,000 shares available for issuance under the 2020 ESPP. Following the effective date of the 2020 Plan, we ceased making grants under the 2017 Plan. To the extent outstanding awards under the 2017 Plan are forfeited or lapse unexercised, the shares of common stock subject to such awards will be available for issuance under the 2020 Plan. The 2020 Plan provides for an annual increase to the number of shares available for issuance thereunder on the first day of each calendar year beginning on January 1, 2021 and ending on and including January 1, 2030, by an amount equal to the lesser of (i) 4% of the aggregate number of shares of common stock outstanding on the final day of the immediately preceding calendar year and (ii) such smaller number of shares of common stock as determined by our board of directors (but no more than 10,000,000 shares may be issued upon the exercise of incentive stock options). The 2020 ESPP provides for an annual increase to the number of shares available for issuance thereunder on the first day of each calendar year beginning on January 1, 2021 and ending on and including January 1, 2030, by an amount equal to the lesser of (i) 1% of the aggregate number of shares of common stock outstanding on the final day of the immediately preceding calendar year and (ii) such smaller number of shares of common stock as is determined by our board of directors, provided that no more than 500,000 shares of our common stock may be issued under the component of the 2020 ESPP that is intended to qualified under Section 423 of the Code. As of the date of this proxy statement, we have not commenced offering periods under the 2020 ESPP.

DIRECTOR COMPENSATION

The non-employee members of our Board are eligible to receive compensation for their service on our Board. In March 2020 our Board adopted a compensation program for our non-employee directors under which each non-employee director who (i) is initially elected or appointed to the Board at an annual meeting of stockholders or (ii) has been serving as a non-employee director as of the date of any annual meeting of stockholders and will continue to serve as a non-employee director immediately following such meeting, is eligible to receive an option to purchase 20,000 shares of common stock on the date of such annual meeting; provided that, for 2020 Dr. Mueller was granted an option to purchase 25,000 shares of common stock in recognition of his increased responsibilities as chairman of the Board. The options granted to our non-employee directors have an exercise price equal to the fair market value of our common stock on the date of grant, expire not later than ten years after the date of grant and vest in a single installment on the earlier of the day before the next annual meeting or the first anniversary of the date of grant. In addition, all unvested stock options vest in full upon the occurrence of a change in control.

In addition, our non-employee directors are eligible to receive cash retainers for service on our Board and committees of our Board as set forth in the table below.

| Position | Amount |
|---|----------|
| Base Board Fee | \$60,000 |
| Chair of Board | \$30,000 |
| Chair of Audit Committee | \$20,000 |
| Chair of Compensation Committee | \$10,000 |
| Chair of Nominating and Corporate Governance Committee | \$ 7,000 |
| Member of Audit Committee (non-Chair) | \$ 7,500 |
| Member of Compensation Committee (non-Chair) | \$ 5,000 |
| Member of Nominating and Corporate Governance Committee (non-Chair) | \$ 3,500 |

Director fees under the program are payable in arrears in four equal quarterly installments not later than the fifteenth day following the final day of each calendar quarter, provided that the amount of each payment will be prorated for any portion of a quarter that a director is not serving on our board.

We also reimburse all of our non-employee directors for all reasonable and customary business expenses in accordance with company policy.

Director Compensation Table

The following table sets forth information for the year ended December 31, 2020 regarding the compensation awarded to, earned by or paid to our non-employee directors:

| Name | Fees Earned or Paid in Cash(\$) | Option Awards(\$) ⁽¹⁾ | All Other Compensation (\$) ⁽¹⁾ | Total (\$) |
|---|---------------------------------------|-------------------------------------|--|------------|
| Peter Mueller, Ph.D. | 114,500 | 841,250 ⁽²⁾ | — | 955,750 |
| Sandeep Laumas, M.D. | 88,500 | 673,000 ⁽³⁾ | — | 761,500 |
| Krishnan Nandabalan, Ph.D. ⁽⁵⁾ | — | 142,800 | 150,000 | 292,800 |
| Michal Votruba, M.D., Ph.D. | 67,500 | 673,000 ⁽⁴⁾ | — | 740,500 |

(1) The amounts reported represent the grant date fair value of stock options granted to our non-employee directors and Dr. Nandabalan as computed in accordance with ASC 718. Note that the amounts reported in this column reflect the accounting cost for these stock options and do not correspond to the actual economic value that may be received by the recipients from the options. We provide information regarding the assumptions used to calculate the value of the option awards in Note 10 to our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2020. The amount shown for Dr. Nandabalan represents options granted to him for his service as a consultant to the Company during 2020.

(2) As of December 31, 2020, Dr. Mueller held options to purchase an aggregate of 201,097 shares of our common stock, of which 163,694 shares of common stock were exercisable.

- (3) As of December 31, 2020, Dr. Laumas held options to purchase an aggregate of 158,888 shares of our common stock, of which 126,485 shares of common stock were exercisable.
- (4) As of December 31, 2020, Dr. Votruba held options to purchase an aggregate of 34,700 shares of our common stock, of which 8,034 shares of common stock were exercisable.
- (5) Dr. Nandabalan serves as President and Chief Scientific Officer of BioXcel Corporation and does not receive compensation for his service on our board. In January 2020, Dr. Nandabalan was engaged as a consultant to the Company in the capacity of Chief Digital Officer and amounts shown in the table above represent cash fees and equity compensation earned by Dr. Nandabalan for his service to the Company in such role. See “Certain Transactions with Related Persons — Chief Digital Officer” below for additional information. As of December 31, 2020, Dr. Nandabalan held options to purchase 489,000 shares of our common stock, of which 474,000 shares of common stock were exercisable.

STOCK OWNERSHIP

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth information relating to the beneficial ownership of our common stock as of April 12, 2021 by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our outstanding shares of common stock;
- each of our directors;
- each of our named executive officers for 2020; and
- all directors and executive officers as a group.

The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC. Under these rules, a person is deemed to be a “beneficial” owner of a security if that person has or shares voting power or investment power, which includes the power to dispose of or to direct the disposition of such security. Except as indicated in the footnotes below, we believe, based on the information furnished to us, that the individuals and entities named in the table below have sole voting and investment power with respect to all shares of common stock beneficially owned by them, subject to any applicable community property laws.

The percentage of shares beneficially owned is computed on the basis of 24,631,573 shares of our common stock outstanding as of April 12, 2021. Shares of our common stock that a person has the right to acquire within 60 days of April 12, 2021 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated below, the address for each beneficial owner listed is c/o 555 Long Wharf Drive, New Haven, CT 06511.

| Name of Beneficial Owner | Number of Shares Beneficially Owned | Percentage of Shares Beneficially Owned |
|--|-------------------------------------|---|
| Holders of more than 5%: | | |
| BioXcel LLC ⁽¹⁾ | 9,020,000 | 36.6% |
| FMR LLC ⁽²⁾ | 2,001,988 | 8.1% |
| State Street Corporation ⁽³⁾ | 1,673,996 | 6.8% |
| Named executive officers and directors: | | |
| Vimal Mehta, Ph.D. ⁽¹⁾⁽⁴⁾ | 9,709,232 | 38.4% |
| William P. Kane, Jr. | — | * |
| Reina Benabou, M.D., Ph.D. | — | * |
| June Bray ⁽⁵⁾ | 4,167 | * |
| Sandeep Laumas, M.D. ⁽⁶⁾ | 158,888 | * |
| Peter Mueller, Ph.D. ⁽⁷⁾ | 410,892 | 1.7% |
| Krishnan Nandabalan, Ph.D. ⁽¹⁾⁽⁸⁾ | 9,499,313 | 37.8% |
| Michal Votruba, M.D., Ph.D. ⁽⁹⁾ | 215,742 | * |
| All executive officers and directors as a group (12 individuals) ⁽¹⁰⁾ | 11,312,016 | 42.8% |

* Represents less than 1%.

(1) Based on a Schedule 13G/A filed with the SEC on February 16, 2021 and information known to us, BioXcel LLC and BioXcel Holdings, Inc. have shared voting power and shared dispositive power over 9,020,000 shares of our common stock, Dr. Nandabalan has shared voting power and shared dispositive power over 9,020,000 shares of our common stock and sole voting power and sole dispositive power over 479,313 shares of our common stock, and Dr. Mehta has shared voting power and shared dispositive power over 9,020,000 shares of our common stock, sole voting power and sole dispositive power over 689,232 shares of our

common stock, comprised of 9,957 shares of our common stock directly held by Dr. Mehta, 2,000 shares that are owned jointly with Dr. Mehta's spouse and options to purchase 677,275 shares of our common stock. BioXcel LLC is a subsidiary of BioXcel Holdings, Inc. Each of Dr. Nandabalan and Dr. Mehta is a manager and officer of BioXcel LLC, and a director, officer and stockholder of BioXcel Holdings, Inc. As such, each of Dr. Nandabalan and Dr. Mehta may be deemed to beneficially own the shares held of record by BioXcel LLC. The address of BioXcel LLC and BioXcel Holdings, Inc. is 2614 Boston Post Road Suite 33B, Guilford, CT 06437.

- (2) Based on a Schedule 13G filed with the SEC on February 8, 2021, FMR LLC beneficially owns 2,001,988 shares of our common stock, including sole voting power over 714,447 shares and sole dispositive power over 2,001,988 shares. The address for FMR LLC is 245 Summer Street, Boston, Massachusetts 02210.
- (3) Based on a Schedule 13G filed with the SEC on February 11, 2021, State Street Corporation beneficially owns 1,673,996 shares of our common stock. State Street Corporation has shared voting power over 1,631,188 shares and dispositive power over 1,673,996 shares. SSGA Funds Management, Inc. has shared voting power over 1,467,307 shares and shared dispositive power over 1,469,807 shares. State Street Corporation is the parent company of SSGA Funds Management, Inc. The address for State Street Corporation and SSGA Funds Management, Inc. is State Street Financial Center, One Lincoln Street, Boston, MA 02111.
- (4) Includes for Dr. Mehta: (i) 9,020,000 shares of common stock held of record by BioXcel LLC as to which Dr. Mehta may be deemed to have beneficial ownership; (ii) 11,957 shares of common stock (of which 2,000 shares are owned jointly with Dr. Mehta's spouse); and (iii) options to purchase 677,275 shares of our common stock that can be exercised within 60 days of April 12, 2021.
- (5) Represents for Ms. Bray options to purchase 4,167 shares of our common stock that can be exercised within 60 days of April 12, 2021.
- (6) Represents for Dr. Laumas options to purchase 158,888 shares of our common stock that can be exercised within 60 days of April 12, 2021.
- (7) Includes for Dr. Mueller 90,000 shares of our common stock held by the Peter Mueller 2018 Irrevocable Family Trust, as to which Dr. Mueller serves as trustee, and options to purchase 201,097 shares of our common stock that can be exercised within 60 days of April 12, 2021.
- (8) Includes for Dr. Nandabalan: (i) 9,020,000 shares of common stock held of record by BioXcel LLC as to which Dr. Nandabalan may be deemed to have beneficial ownership; and (ii) options to purchase 479,313 shares of our common stock that can be exercised within 60 days of April 12, 2021.
- (9) Includes 184,375 shares of our common stock held by RSJ Investments SICAV a.s. ("RSJ/Gradus") and over which Dr. Votruba, an asset manager at RSJ/Gradus, has voting and/or dispositive power. Also includes options to purchase 31,367 shares of our common stock that can be exercised within 60 days of April 12, 2021, which options Dr. Votruba was granted in respect of his service on our Board but as to which he assigned to RSJ/Gradus pursuant to the policies of RSJ/Gradus regarding stock ownership by employees.
- (10) Includes options to purchase 1,825,992 shares of our common stock that can be exercised within 60 days of April 12, 2021.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires our executive officers and directors, our principal accounting officer and persons who beneficially own more than 10% of our common stock to file with the SEC reports of their ownership and changes in their ownership of our common stock. To our knowledge, based solely on review of the copies of such reports and amendments to such reports with respect to the year ended December 31, 2020 filed with the SEC and on written representations by our directors and executive officers, all required Section 16 reports under the Exchange Act for our directors, executive officers, principal accounting officer and beneficial owners of greater than 10% of our common stock were filed on a timely basis during the year ended December 31, 2020 or prior fiscal years other than: (1) for Krishnan Nandabalan, one Form 4 reporting two transactions, which was inadvertently filed late, and one Form 4 reporting one transaction, which was inadvertently filed late; (2) for Vimal Mehta, one Form 4 reporting two transactions, which was inadvertently filed late, and one Form 3/A, which corrected inadvertently omitted shares of common stock from the timely filed Form 3 and subsequent Form 4s; (3) for BioXcel Corporation (predecessor in interest to BioXcel LLC), one Form 4 reporting one transaction, which was inadvertently filed late; (4) for BioXcel Holdings, Inc., a late Form 3 and a late Form 4 reporting three transactions and (5) for BioXcel LLC, a late Form 3 and a late Form 4 reporting one transaction.

CERTAIN TRANSACTIONS WITH RELATED PERSONS

Policies and Procedures on Transactions with Related Persons

Our Board of Directors recognizes that transactions with related persons present a heightened risk of conflicts of interests and/or improper valuation (or the perception thereof). Our Board has adopted a written policy on transactions with related persons, which requires that our audit committee approve or ratify related person transactions required to be disclosed pursuant to Item 404(a). Item 404 of Regulation S-K requires disclosure, subject to certain exceptions, of transactions in which we were or are to be a participant and the amount involved exceeds \$120,000 (or such other amount is applicable while we remain a smaller reporting company) and in which any “related person” as defined under Item 404(a) of Regulation S-K had or will have a direct or indirect material interest. It is our policy that directors interested in a related person transaction will recuse themselves from any vote on a related person transaction in which they have an interest and that no director may participate in the approval of a related person transaction for which he or she is a “related person.” Each of the transactions described below entered into following the adoption of our related person transaction policy was approved in accordance with such policy.

BioXcel LLC

BioXcel LLC, our parent, owned approximately 36.6% of the economic interest and voting power of our outstanding common stock as of April 12, 2021. BioXcel LLC is the successor in interest to BioXcel Corporation, our former parent. BioXcel LLC is majority owned and controlled by BioXcel Holdings, Inc. Vimal Mehta, Ph.D., our Chief Executive Officer and President, and member of our Board, is a co-founder of BioXcel Corporation and BioXcel LLC and serves as BioXcel LLC’s Chairman of the Board and Chief Executive Officer. Krishnan Nandabalan, Ph.D., our Chief Digital Officer and a member of our Board, is a co-founder of BioXcel Corporation and BioXcel LLC and serves as BioXcel LLC’s President, Secretary and Chief Scientific Officer. Both Dr. Mehta and Dr. Nandabalan are controlling stockholders of BioXcel Holdings, Inc.

Amended and Restated Asset Contribution Agreement with BioXcel LLC

We entered into an asset contribution agreement, effective June 30, 2017, with BioXcel LLC (formerly BioXcel Corporation), as amended and restated on November 7, 2017 (the “Contribution Agreement”), pursuant to which BioXcel LLC contributed to us, and we acquired from BioXcel LLC, all of BioXcel LLC’s rights, title and interest in and to 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 our common stock, (ii) \$1 million upon completion of our initial public offering (“IPO”), (iii) \$500,000 upon the later of the 12 month anniversary of our 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 our 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. Pursuant to such provisions in the Contribution Agreement, we paid BioXcel LLC (or BioXcel Corporation, as applicable) a total of \$1,000,000 during the year ended December 31, 2019. There were no such payments during the year ended December 31, 2020.

In addition, pursuant to the Contribution Agreement, BioXcel LLC granted us a first right to negotiate exclusive rights to any additional product candidates in the fields of neuroscience and immuno- oncology (the “Option Field”) that BioXcel LLC may identify on its own, excluding the Candidates, and not in connection with BioXcel LLC’s provision of services to us under the Services Agreement as defined and described below. This option for first negotiation shall be valid for a period of five years from the date of our IPO. Within 60 days of identifying a potential product candidate in the Option Field, BioXcel LLC shall present such identified candidate to us and we shall then have up to 180 days in which to evaluate such product candidate, or the Evaluation Period. If we wish to negotiate for the exclusive rights to such product candidate, we shall notify BioXcel LLC in writing prior to the end of the Evaluation Period, and upon such notification, we and BioXcel LLC shall negotiate in good faith commercially reasonable terms pursuant

to which we can receive BioXcel LLC's rights to such product candidate. If we are unable to mutually agree, in writing, within 90 days after the end of the Evaluation Period to terms regarding our rights to develop and/or commercialize such product candidate, BioXcel LLC shall be free to develop and/or commercialize such product candidate either by itself or with one or more third parties. Prior to the fifth anniversary of our IPO, BioXcel LLC has also agreed to not provide product identification collaborative services to third parties in the fields of neuroscience or immuno-oncology when such third parties utilize EvolverAI.

Amended and Restated Separation and Shared Services Agreement

We entered into a separation and shared services agreement, dated June 30, 2017, or the Effective Date, with BioXcel LLC (formerly BioXcel Corporation), as amended and restated thereafter (the "Services Agreement"), pursuant to which services provided by BioXcel LLC through its subsidiaries in India and the United States will continue indefinitely, as agreed upon by the parties. These services are primarily for drug discovery, chemical, manufacturing and controls cost and general and administrative support. Service charges recorded under this agreement were \$1.3 million and \$862,000 for the years ended December 31, 2020 and 2019, respectively.

Under the Services Agreement, the Company has an option, exercisable until March 12, 2023, to enter into a collaborative services agreement with BioXcel LLC pursuant to which BioXcel LLC shall perform product identification and related services for us utilizing EvolverAI. The parties are obligated to negotiate the collaborative services agreement in good faith and to incorporate reasonable market-based terms, including consideration for BioXcel LLC reflecting a low, single-digit royalty on net sales and reasonable development and commercialization milestone payments, provided that (i) development milestones shall not exceed \$10 million in the aggregate and not be payable prior to proof of concept in humans and (ii) commercialization milestones shall be based on reaching annual net sales levels, be limited to 3% of the applicable net sales level, and not exceed \$30 million in the aggregate. BioXcel LLC shall continue to make such product identification and related services available to us for at least until September 30, 2024.

Purchase Agreement

On February 18, 2020, we entered into a stock purchase agreement with BioXcel Corporation, the predecessor in interest to BioXcel LLC (the "Purchase Agreement"), pursuant to which, to the extent the underwriters to our February 2020 offering of common stock exercised an option to purchase up to 300,000 additional shares of our common stock, we would use the net proceeds of up to approximately \$9.0 million from the sale of additional shares to repurchase the same number of shares of the Company's common stock from BioXcel Corporation at a price per share equal to the price per share paid by the underwriters in the offering for such additional shares. The underwriters exercised their option in full and, in February 2020, we purchased 300,000 shares of our common stock from BioXcel Corporation at a per share price of \$30.08.

Consulting Arrangements with BioXcel LLC Employees

In January 2020, Krishnan Nandabalan, Ph.D., a director on our Board, was engaged as a consultant in the capacity of Chief Digital Officer. In connection with this service, Dr. Nandabalan was granted an option to purchase 15,000 shares of our common stock having a value of approximately \$142,800. In addition, in accordance with the Amended Services Agreement, the Company pays BioXcel LLC, where Dr. Nandabalan serves as President, monthly compensation of \$12,500 in an annual aggregate amount not to exceed \$150,000 as consideration under the Services Agreement for Dr. Nandabalan's services as Chief Digital Officer.

inveniAI

inveniAI, a wholly owned subsidiary of BioXcel LLC, has agreed to provide certain research and development services to the Company in connection with our product candidates up to a maximum aggregate amount of \$300,000, \$150,000 of which was paid in the year ended December 31, 2020.

Director and Officer Indemnification and Insurance

We have agreed to indemnify each of our directors and executive officers against certain liabilities, costs and expenses, and have purchased directors' and officers' liability insurance.

STOCKHOLDER PROPOSALS AND DIRECTOR NOMINATIONS

Stockholders who intend to have a proposal considered for inclusion in our proxy materials for presentation at our annual meeting of stockholders to be held in 2022 (the “2022 Annual Meeting”) pursuant to Rule 14a-8 under the Exchange Act must submit the proposal to our Corporate Secretary at our offices at 555 Long Wharf Drive, New Haven, CT 06511, in writing not later than [], 2021.

Stockholders intending to present a proposal at our 2022 Annual Meeting, but not to include the proposal in our proxy statement, or to nominate a person for election as a director, must comply with the requirements set forth in our bylaws. Our bylaws require, among other things, that our Corporate Secretary receive written notice from the stockholder of record of their intent to present such proposal or nomination not earlier than the close of business on the 120th day and not later than the close of business on the 90th day prior to the anniversary of the preceding year’s annual meeting of stockholders. Therefore, we must receive notice of such a proposal or nomination for the 2022 Annual Meeting no earlier than the close of business on February 11, 2022 and no later than the close of business on March 13, 2022. The notice must contain the information required by our bylaws. In the event that the date of the 2022 Annual Meeting is more than 30 days before or more than 60 days after June 11, 2022, then our Corporate Secretary must receive such written notice not earlier than the close of business on the 120th day prior to the 2022 Annual Meeting and not later than the close of business of the 90th day prior to the 2022 Annual Meeting or, if later, the 10th day following the day on which public disclosure of the date of such meeting is first made by us. SEC rules permit management to vote proxies in its discretion in certain cases if the stockholder does not comply with this deadline and, in certain other cases notwithstanding the stockholder’s compliance with this deadline.

We reserve the right to reject, rule out of order or take other appropriate action with respect to any proposal that does not comply with these or other applicable requirements.

HOUSEHOLDING

SEC rules permit companies and intermediaries such as brokers to satisfy delivery requirements for proxy statements and notices with respect to two or more stockholders sharing the same address by delivering a single proxy statement or a single notice addressed to those stockholders. This process, which is commonly referred to as “householding,” provides cost savings for companies and helps the environment by conserving natural resources. Some brokers household proxy materials, delivering a single proxy statement or notice to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be householding materials to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement or notice, or if your household is receiving multiple copies of these documents and you wish to request that future deliveries be limited to a single copy, please notify your broker. You can also request prompt delivery of a copy of this Proxy Statement and the Annual Report by contacting the Broadridge Financial Solutions, Inc. at (866) 540-7095 or in writing at Broadridge, Householding Department, 51 Mercedes Way, Edgewood, New York 11717.

2020 ANNUAL REPORT

Our 2020 Annual Report, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, is being mailed with this Proxy Statement to those stockholders that receive this Proxy Statement in the mail. Stockholders that receive the Notice Regarding the Availability of Proxy Materials can access our 2020 Annual Report, including our Annual Report on Form 10-K for 2020, at www.proxyvote.com.

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 has also been filed with the SEC. It is available free of charge at the SEC's website at www.sec.gov. Upon written request by a stockholder, we will mail without charge a copy of our Annual Report on Form 10-K, including the financial statements and financial statement schedules, but excluding exhibits. Exhibits to the Annual Report on Form 10-K are available upon payment of a reasonable fee, which is limited to our expenses in furnishing the requested exhibit. All requests should be directed to the Corporate Secretary, BioXcel Therapeutics, Inc., 555 Long Wharf Drive, New Haven, CT 06511.

Your vote is important. Please promptly vote your shares by following the instructions for voting on the Notice Regarding the Availability of Proxy Materials or, if you received a paper or electronic copy of our proxy materials, by completing, signing, dating and returning your proxy card or by Internet or telephone voting as described on your proxy card.

By Order of the Board of Directors,

New Haven, CT
April [], 2021

BIOXCEL THERAPEUTICS, INC.
 555 LONG WHARF DRIVE
 NEW HAVEN, CT 06511

VOTE BY INTERNET
Before The Meeting - Go to www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information. Vote by 11:59 P.M. Eastern Time on June 10, 2021. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/BTAI2021

You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions. Vote by 11:59 P.M. Eastern Time on June 10, 2021. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

D49401-P56126

KEEP THIS PORTION FOR YOUR RECORDS
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

| | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|---|----------------|----------------|
| BIOXCEL THERAPEUTICS, INC. | | For All | Withhold All | For All Except | To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below. | | |
| The Board of Directors recommends you vote FOR the following: | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | | |
| 1. Election of Class III Directors Nominees: 01) Vimal Mehta, Ph.D. 02) Peter Mueller, Ph.D. | | | | | | | |
| The Board of Directors recommends you vote FOR proposals 2, 3 and 4. | | | | | For | Against | Abstain |
| 2. Ratification, in a non-binding vote, of the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for 2021. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 3. The approval of an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock of the Company from 50,000,000 to 100,000,000. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 4. The approval of an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes at the time of the Annual Meeting to approve Proposal 3. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| NOTE: Such other business as may properly come before the meeting or any continuation, postponement or adjournment thereof. | | | | | | | |
| Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer. | | | | | | | |
| _____ Signature [PLEASE SIGN WITHIN BOX] | | | | | _____ Signature (Joint Owners) | | |
| _____ Date | | | | | _____ Date | | |

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Notice and Proxy Statement and Annual Report are available at www.proxyvote.com.

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**BIOXCEL THERAPEUTICS, INC.
Annual Meeting of Stockholders
June 11, 2021, 9:00 a.m., Eastern Time
This proxy is solicited by the Board of Directors**

The stockholder(s) hereby appoint(s) Vimal Mehta, Ph.D., Richard Steinhart and Javier Rodriguez, or each of them, as proxies, each with the power to appoint his substitute, and hereby authorize(s) them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of common stock of BIOXCEL THERAPEUTICS, INC. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders to be held at 9:00 a.m., Eastern Time on June 11, 2021, live via webcast at www.virtualshareholdermeeting.com/BTAI2021, and any continuation, adjournment or postponement thereof, with all powers which the undersigned would possess if present at the meeting.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations, as indicated on the reverse side, and in the discretion of the proxies with respect to such other matters as may properly come before the Annual Meeting.

Continued and to be signed on reverse side