UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

SCHEDULE 14A

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

Filed by a Party other than the Registrant \Box Filed by the Registrant \boxtimes

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

X Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material under §240.14a-12

Omega 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 all boxes that apply):

X No fee required.

Fee paid previously with preliminary materials.

Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.

NOTICE & PROXY STATEMENT

Annual Meeting of Stockholders

June 7, 2023 9:00 a.m. (Eastern time)

OMEGA THERAPEUTICS, INC. 20 ACORN PARK DRIVE CAMBRIDGE, MASSACHUSETTS 02140 April 25, 2023

To Our Stockholders:

You are cordially invited to attend the 2023 Annual Meeting of Stockholders (the "Annual Meeting") of Omega Therapeutics, Inc. at 9:00 a.m. Eastern time, on Wednesday, June 7, 2023. The Annual Meeting will be a completely virtual meeting, which will be conducted via live webcast.

The Notice of Meeting and Proxy Statement on the following pages describe the matters to be presented at the Annual Meeting. Please see the section called "Who can attend the Annual Meeting?" on page 3 of the proxy statement for more information about how to attend the meeting online.

Whether or not you attend the Annual Meeting online, it is important that your shares be represented and voted at the Annual Meeting. Therefore, I urge you to promptly vote and submit your proxy by phone, via the Internet, or, if you received paper copies of these materials, by signing, dating and returning the enclosed proxy card in the enclosed envelope, which requires no postage if mailed in the United States. If you have previously received our Notice of Internet Availability of Proxy Materials, then instructions regarding how you can vote are contained on the proxy card. If you decide to attend the Annual Meeting, you will be able to vote online, even if you have previously submitted your proxy.

Thank you for your support.

Sincerely,

Munde

Mahesh Karande President, Chief Executive Officer and Director

Table of Contents

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS	
PROXY STATEMENT	1
Proposals	1
Recommendations of the Board	1
Information About This Proxy Statement	2
QUESTIONS AND ANSWERS ABOUT THE 2022 ANNUAL MEETING OF STOCKHOLDERS	3
PROPOSALS TO BE VOTED ON	7
Proposal 1: Election of Directors	7
Proposal 2: Ratification of Appointment of Independent Registered Public Accounting Firm	11
REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS	12
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FEES AND OTHER MATTERS	13
EXECUTIVE OFFICERS	14
CORPORATE GOVERNANCE	16
General	16
Board Composition	16
Director Independence Director Condidates	16
Director Candidates Communications from Stockholders	16 17
Board Leadership Structure and Role in Risk Oversight	17
Code of Ethics	18
Anti-Hedging Policy	18
Attendance by Members of the Board of Directors at Meetings	18
COMMITTEES OF THE BOARD	19
Audit Committee	19
<u>Compensation Committee</u>	20
Nominating and Corporate Governance Committee	20
Research and Development and Science Committee	21
EXECUTIVE AND DIRECTOR COMPENSATION	21
2022 Summary Compensation Table	22
Narrative Disclosure to Summary Compensation Table	23
Outstanding Equity Awards at 2022 Fiscal Year-End	24
2022 Director Compensation	25
Non-Employee Director Compensation Program	26
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	28
CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS	30
STOCKHOLDERS' PROPOSALS	33
OTHER MATTERS	33
SOLICITATION OF PROXIES	33
OMEGA'S ANNUAL REPORT ON FORM 10-K	34



OMEGA THERAPEUTICS, INC. 20 Acorn Park Drive Cambridge, Massachusetts 02140

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS TO BE HELD WEDNESDAY, JUNE 7, 2023

The Annual Meeting of Stockholders (the "Annual Meeting") of Omega Therapeutics, Inc., a Delaware corporation (the "Company"), will be held at 9:00 a.m. Eastern time on Wednesday, June 7, 2023. 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/OMGA2023* 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. The Annual Meeting will be held for the following purposes:

- To elect John Mendlein, Ph.D., J.D., Mary T. Szela and Richard A. Young, Ph.D. as Class II Directors to serve until the 2026 Annual Meeting of Stockholders, and until their respective successors shall have been duly elected and qualified;
- To ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2023; and
- To transact such other business as may properly come before the Annual Meeting or any continuation, postponement, or adjournment of the Annual Meeting.

Holders of record of our common stock as of the close of business on April 11, 2023 are entitled to notice of and to vote at the Annual Meeting, or any continuation, postponement or adjournment of the Annual Meeting. A complete list of such stockholders will be open to the examination of any stockholder for a period of ten days prior to the Annual Meeting for a purpose germane to the meeting by sending an email to Ling Zeng, Chief Legal and Administrative Officer and Secretary, at lzeng@omegatx.com, stating the purpose of the request and providing proof of ownership of Company stock. The list of these stockholders will also be available on the bottom of your screen during the Annual Meeting after entering the 16-digit control number included on your Notice of Internet Availability of Proxy Materials, on your proxy card or on the instructions that accompanied your proxy materials. The Annual Meeting may be continued or adjourned from time to time without notice other than by announcement at the Annual Meeting.

It is important that your shares be represented regardless of the number of shares you may hold. Whether or not you plan to attend the Annual Meeting online, we urge you to vote your shares via the toll-free telephone number or over the Internet, as described in the enclosed materials. If you receive a copy of the proxy card by mail, you may sign, date and mail the proxy card in the enclosed return envelope. Promptly voting your shares will ensure the presence of a quorum at the Annual Meeting and will save us the expense of further solicitation. Submitting your proxy now will not prevent you from voting your shares at the Annual Meeting if you desire to do so, as your proxy is revocable at your option.

By Order of the Board of Directors

Ling Zeng Chief Legal and Administrative Officer and Secretary

Cambridge, Massachusetts April 25, 2023



OMEGA THERAPEUTICS, INC. 20 Acorn Park Drive Cambridge, Massachusetts 02140

PROXY STATEMENT

This proxy statement is furnished in connection with the solicitation by the Board of Directors of Omega Therapeutics, Inc. of proxies to be voted at our Annual Meeting of Stockholders to be held on Wednesday, June 7, 2023 (the "Annual Meeting"), at 9:00 a.m. Eastern time, and at any continuation, postponement, or adjournment of the Annual Meeting. 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/OMGA2023* 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.

Holders of record of shares of our common stock, \$0.001 par value per share, as of the close of business on April 11, 2023 (the "Record Date"), will be entitled to notice of and to vote at the Annual Meeting and any continuation, postponement, or adjournment of the Annual Meeting. As of the Record Date, there were 55,023,089 shares of common stock outstanding and entitled to vote at the Annual Meeting. Each share of common stock is entitled to one vote on any matter presented to stockholders at the Annual Meeting.

This proxy statement and the Company's Annual Report to Stockholders for the year ended December 31, 2022 (the "2022 Annual Report") will be released on or about April 25, 2023 to our stockholders on the Record Date.

In this proxy statement, "Omega", "Company", "we", "us", and "our" refer to Omega Therapeutics, Inc.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON WEDNESDAY, JUNE 7, 2023

This Proxy Statement and our 2022 Annual Report to Stockholders are available at http://www.proxyvote.com/

Proposals

At the Annual Meeting, our stockholders will be asked:

- To elect John Mendlein, Ph.D., J.D., Mary T. Szela and Richard A. Young, Ph.D. as Class II Directors to serve until the 2026 Annual Meeting of Stockholders, and until their respective successors shall have been duly elected and qualified;
- To ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2023; and
- To transact such other business as may properly come before the Annual Meeting or any continuation, postponement, or adjournment of the Annual Meeting.

We know of no other business that will be presented at the Annual Meeting. If any other matter properly comes before the stockholders for a vote at the Annual Meeting, however, the proxy holders named on the Company's proxy card will vote your shares in accordance with their best judgment.

Recommendations of the Board

The Board of Directors (the "Board") recommends that you vote your shares as indicated below. If you return a properly completed proxy card, or vote your shares by telephone or Internet, your shares of common stock will be voted on your behalf as you direct. If



not otherwise specified, the shares of common stock represented by the proxies will be voted, and the Board of Directors recommends that you vote:

- FOR the election of John Mendlein, Ph.D., J.D., Mary T. Szela and Richard A. Young, Ph.D. as Class II Directors; and
- FOR the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2023.

If any other matter properly comes before the stockholders for a vote at the Annual Meeting, the proxy holders named on the Company's proxy card will vote your shares in accordance with their best judgment.

Information About This Proxy Statement

Why you received this proxy statement. You are viewing or have received these proxy materials because Omega's Board of Directors is soliciting your proxy to vote your shares at the Annual Meeting. This proxy statement includes information that we are required to provide to you under the rules of the Securities and Exchange Commission ("SEC") and that is designed to assist you in voting your shares.

Notice of Internet Availability of Proxy Materials. As permitted by SEC rules, Omega is making this proxy statement and its 2022 Annual Report available to its stockholders electronically via the Internet. On or about April 25, 2023, we mailed to our stockholders a Notice of Internet Availability of Proxy Materials (the "Internet Notice") containing instructions on how to access this proxy statement and our 2022 Annual Report and vote online. If you received an Internet Notice by mail, you will not receive a printed copy of the proxy materials in the mail unless you specifically request them. Instead, the Internet Notice instructs you on how to access and review all of the important information contained in the proxy statement and 2022 Annual Report. The Internet Notice also instructs you on how you may submit your proxy over the Internet. If you received an Internet Notice by mail and would like to receive a printed copy of our proxy materials, you should follow the instructions for requesting such materials contained on the Internet Notice.

Printed Copies of Our Proxy Materials. If you received printed copies of our proxy materials, then instructions regarding how you can vote are contained on the proxy card included in the materials.

Householding. The SEC's rules permit us to deliver a single set of proxy materials to one address shared by two or more of our stockholders. This delivery method is referred to as "householding" and can result in significant cost savings. To take advantage of this opportunity, we have delivered only one set of proxy materials to multiple stockholders who share an address, unless we received contrary instructions from the impacted stockholders prior to the mailing date. We agree to deliver promptly, upon written or oral request, a separate copy of the proxy materials, as requested, to any stockholder at the shared address to which a single copy of those documents was delivered. If you prefer to receive separate copies of the proxy materials, contact Broadridge Financial Solutions, Inc. at 1-866-540-7095 or in writing at Broadridge, Householding Department, 51 Mercedes Way, Edgewood, New York 11717.

If you are currently a stockholder sharing an address with another stockholder and wish to receive only one copy of future proxy materials for your household, please contact Broadridge at the above phone number or address.

2

QUESTIONS AND ANSWERS ABOUT THE 2023 ANNUAL MEETING OF STOCKHOLDERS

Who is entitled to vote at the Annual Meeting?

The Record Date for the Annual Meeting is April 11, 2023. You are entitled to vote at the Annual Meeting only if you were a stockholder of record at the close of business on that date, or if you hold a valid proxy for the Annual Meeting. Each outstanding share of common stock is entitled to one vote for all matters before the Annual Meeting. At the close of business on the Record Date, there were 55,023,089 shares of common stock outstanding and entitled to vote at the Annual Meeting.

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

A record holder holds shares in his or her name. Shares held in "street name" means shares that are held in the name of a bank or broker on a person's behalf.

Am I entitled to vote if my shares are held in "street name"?

Yes. If your shares are held by a bank or a brokerage firm, you are considered the "beneficial owner" of those shares held in "street name." If your shares are held in street name, these proxy materials are being provided to you by your bank or brokerage firm, along with a voting instruction card if you received printed copies of our proxy materials. As the beneficial owner, you have the right to direct your bank or brokerage firm how to vote your shares, and the bank or brokerage firm is required to vote your shares in accordance with your instructions. See "How do I vote – Beneficial Owners of Shares Held in 'Street Name'" below for additional information.

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 presence at the Annual Meeting online or by proxy, of the holders of a majority in voting power of the common stock issued and outstanding and entitled to vote on the Record Date will constitute a quorum.

Who can attend the Annual Meeting?

You may attend the Annual Meeting online only if you are an Omega stockholder who is entitled to vote at the Annual Meeting, or if you hold a valid proxy for the Annual Meeting. You may attend and participate in the Annual Meeting by visiting the following website: *www.virtualshareholdermeeting.com/OMGA2023*. To attend and participate in the Annual Meeting, you will need the 16-digit control number included in your Internet Notice, 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 if a quorum is not present at the Annual Meeting?

If a quorum is not present at the scheduled time of the Annual Meeting, the Chairperson of the Annual Meeting is authorized by our Amended and Restated Bylaws to adjourn the meeting, without the vote of stockholders.

What does it mean if I receive more than one Internet Notice 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 Internet Notice 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.

How do I vote?

Stockholders of Record. If you are a stockholder of record, you may vote:

• by Internet—You can vote over the Internet at www.proxyvote.com by following the instructions on the Internet Notice or proxy card;



- by Telephone—You can vote by telephone by calling 1-800-690-6903 and following the instructions on the proxy card;
- by Mail-You can vote by mail by signing, dating and mailing the proxy card, which you may have received by mail; or
- Electronically at the Meeting—If you attend the meeting online, you will need the 16-digit control number included in your Internet Notice, on your proxy card or on the instructions that accompanied your proxy materials to vote electronically during the meeting.

Internet and telephone 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 6, 2023. To participate in the Annual Meeting, including to vote via the Internet or telephone, you will need the 16-digit control number included on your Internet Notice, on your proxy card or on the instructions that accompanied your proxy materials.

Whether or not you expect to attend the Annual Meeting online, we urge you to vote your shares as promptly as possible to ensure your representation and the presence of a quorum at the Annual Meeting. If you submit your proxy, you may still decide to attend the Annual Meeting and vote your shares electronically.

Beneficial Owners of Shares Held in "Street Name." If your shares are held in "street name" through a bank or broker, you will receive instructions on how to vote from the bank or broker. You must follow their instructions in order for your shares to be voted. Internet and telephone voting also may be offered to stockholders owning shares through certain banks and brokers. If your shares are not registered in your own name and you would like to vote your shares online at the Annual Meeting, 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. You will need to obtain your own Internet access if you choose to attend the Annual Meeting online and/or vote over the Internet.

Can I change my vote after I submit my proxy?

Yes.

If you are a registered stockholder, you may revoke your proxy and change your vote:

- by submitting a duly executed proxy bearing a later date;
- by granting a subsequent proxy through the Internet or telephone;
- by giving written notice of revocation to the Secretary of Omega prior to or at the Annual Meeting; or
- by voting online at the Annual Meeting.

Your most recent proxy card or Internet or telephone 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 Secretary before your proxy is voted or you vote online at the Annual Meeting.

If your shares are held in street name, you may change or revoke your voting instructions by following the specific directions provided to you by your bank or broker, or you may vote online at the Annual Meeting by obtaining your 16-digit control number or otherwise voting through the bank or broker.

Who will count the votes?

A representative of Broadridge Financial Solutions, Inc., our inspector of election, will tabulate and certify the votes.

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 of Directors. The Board of Directors' recommendations are indicated on page 2 of this proxy statement, as well as with the description of each proposal in this proxy statement.

Will any other business be conducted at the Annual Meeting?

We know of no other business that will be presented at the Annual Meeting. If any other matter properly comes before the stockholders for a vote at the Annual Meeting, however, the proxy holders named on the Company's proxy card will vote your shares in accordance with their best judgment.



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, and the information for assistance will be located on *www.virtualshareholdermeeting.com/OMGA2023*.

Will there be a question and answer session during the Annual Meeting?

As part of the Annual Meeting, we will hold a live Q&A session, during which we intend to answer questions submitted online during the meeting that are pertinent to the Company and the meeting matters, as time permits. Only stockholders that have accessed the Annual Meeting as a stockholder (rather than as a "Guest") by following the procedures outlined above in "Who can attend the Annual Meeting?" will be permitted to submit questions during the Annual Meeting. Each stockholder is limited to no more than two questions. Questions should be succinct and only cover a single topic. 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 material non-public information of the Company, including the status or results of our business since our last Quarterly Report on Form 10-Q;
- related to any pending, threatened or ongoing litigation;
- related to personal grievances;
- derogatory references to individuals or that are otherwise in bad taste;
- substantially repetitious of questions already made by another stockholder;
- in excess of the two question limit;
- 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 or 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 as a "Guest") by following the procedures outlined above in "Who can attend the Annual Meeting?".

How many votes are required for the approval of the proposals to be voted upon and how will abstentions and broker non-votes be treated?

Proposal	Votes required	Effect of Votes Withheld / Abstentions and Broker Non-Votes
Proposal 1: Election of Directors	The plurality of the votes cast. This means that the three nominees receiving the highest number of affirmative "FOR" votes will be elected as Class II Directors.	Votes withheld and broker non-votes will have no effect.
<u>Proposal 2</u> : 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.	Abstentions will have no effect. We do not expect any broker non-votes on this proposal.

What is a "vote withheld" and an "abstention" and how will votes withheld and abstentions be treated?

A "vote withheld," in the case of the proposal regarding the election of directors, or an "abstention," in the case of the proposal regarding the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm, represents a stockholder's affirmative choice to decline to vote on a proposal. Votes withheld and abstentions are counted as present and entitled to vote for purposes of determining a quorum. Votes withheld have no effect on the ratification of the appointment of Deloitte & Touche LLP.

What are broker non-votes and do they count for determining a quorum?

Generally, broker non-votes occur when shares held by a broker in "street name" for a beneficial owner are not voted with respect to a particular proposal because the broker (1) has not received voting instructions from the beneficial owner and (2) lacks discretionary voting power to vote those shares. A broker is entitled to vote shares held for a beneficial owner on routine matters, such as the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm, without instructions from the beneficial owner of those shares. On the other hand, absent instructions from the beneficial owner of such shares, a broker is not entitled to vote shares held for a beneficial owner on non-routine matters, such as the election of directors. Broker non-votes count for purposes of determining whether a quorum is present.

Where can I find the voting results of the Annual Meeting?

We plan to announce preliminary voting results at the Annual Meeting and we will report the final results in a Current Report on Form 8-K, which we intend to file with the SEC after the Annual Meeting.

PROPOSALS TO BE VOTED ON

Proposal 1: Election of Directors

At the Annual Meeting, three (3) Class II Directors are to be elected to hold office until the Annual Meeting of Stockholders to be held in 2026 and until each such director's respective successor is elected and qualified or until each such director's earlier death, resignation or removal.

We currently have eight (8) directors on our Board. Our current Class II Directors are John Mendlein, Ph.D., J.D., Mary T. Szela and Richard A. Young, Ph.D. The Board has nominated John Mendlein, Ph.D., J.D., Mary T. Szela and Richard A. Young, Ph.D. for election as Class II Directors at the Annual Meeting.

As set forth in our Restated Certificate of Incorporation, the Board of Directors is currently divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. The current class structure is as follows: Class I, whose term will expire at the 2025 Annual Meeting of Stockholders; Class II, whose current term will expire at the Annual Meeting and, if elected at the Annual Meeting, whose subsequent term will expire at the 2026 Annual Meeting of Stockholders; and Class III, whose term will expire at the 2024 Annual Meeting of Stockholders. The current Class II Directors are John Mendlein, Ph.D., J.D., Mary T. Szela and Richard A. Young, Ph.D.; and the current Class III Directors are Luke M. Beshar, Rainer J. Boehm, M.D. and Elliott M. Levy, M.D.

Our Restated Certificate of Incorporation and Amended and Restated Bylaws provide that, subject to the rights of holders of any series of preferred stock to elect directors, the authorized number of directors may be changed from time to time by the Board of Directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our Board of Directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of our capital stock entitled to vote in the election of directors.

If you submit a proxy but do not indicate any voting instructions, the persons named as proxies will vote the shares of common stock represented thereby for the election as Class II Directors of the persons whose names and biographies appears below. In the event that any of Dr. Mendlein, Ms. Szela or Dr. Young should become unable to serve, or for good cause will not serve, as a director, it is intended that votes will be cast for a substitute nominee designated by the Board of Directors or the Board may elect to reduce its size. The Board of Directors has no reason to believe that any of Dr. Mendlein, Ms. Szela or Dr. Young will be unable to serve if elected. Each of Dr. Mendlein, Ms. Szela and Dr. Young has consented to being named in this proxy statement and to serve if elected.

Vote required

The proposal regarding the election of directors requires the approval of a plurality of the votes cast. This means that the three nominees receiving the highest number of affirmative "FOR" votes will be elected as Class II Directors.

Votes withheld and broker non-votes are not considered to be votes cast and, accordingly, will have no effect on the outcome of the vote on this proposal.



The Board of Directors unanimously recommends a vote FOR the election of each of the below Class II Director nominees.

Nominees For Class II Director (terms to expire at the 2026 Annual Meeting)

The current members of the Board of Directors who are also nominees for election to the Board of Directors as Class II Directors are as follows:

Name	Age	Served as a Director Since	Position with Omega
John Mendlein, Ph.D., J.D.	63	2020	Director
Mary T. Szela	59	2019	Director
Richard A. Young, Ph.D.	69	2017	Director

The principal occupations and business experience, for at least the past five years, of each Class II Director nominee for election at the 2023 Annual Meeting are as follows:

John Mendlein, Ph.D., J.D.

John Mendlein has served as a member of our Board since January 2020. Dr. Mendlein has served as an Executive Partner at Flagship Pioneering, a life sciences venture capital company, since February 2019. From January 2018 to February 2019, Dr. Mendlein served as President of Corporate and Product Strategy of Moderna, Inc., a pharmaceutical and biotechnology company. From 1996 until 2017, Dr. Mendlein held different senior executive and board roles, including Executive Chairman, Chief Executive Officer and General Counsel, of various biotechnology companies, including Affinium Pharmaceuticals (acquired by Debiopharm Group), Adnexus Therapeutics (acquired by BMS), aTyr Pharma, Inc., or aTyr, Aurora Biosciences (acquired by Vertex), and Fate Therapeutics, Inc., or Fate. From 2011 to 2017, he also served as Chief Executive Officer of aTyr. He started his biotechnology career at Smith Kline and French (now GlaxoSmithKline). He currently serves as Vice Chairman of the board of directors of Fate and previously served on the public boards of directors of Moderna, Monogram, aTyr, and Editas Medicine, Inc. Dr. Mendlein holds a Ph.D. in physiology and biophysics from the University of California, Los Angeles, a J.D. from the University of California, College of the Law, San Francisco and a B.S. in biology from the University of Miami. We believe that Dr. Mendlein's extensive scientific experience and experience in the biotechnology industry qualifies him to serve on our Board.

Mary T. Szela

Mary T. Szela has served as a member of our Board since June 2019. Ms. Szela has served as the Chief Executive Officer and President of TriSalus Life Sciences, Inc. (formerly Surefire Medical, Inc.), a privately held immuno-oncology company since January 2018. From January 2016 to November 2016, Ms. Szela served as Chief Executive Officer and a director of Aegerion Pharmaceuticals, Inc. In November 2016, Aegerion Pharmaceuticals, Inc. merged with QLT Inc. to form Novelion Therapeutics Inc. where Ms. Szela served as Chief Executive Officer and as a member of its board of directors until November 2017. Ms. Szela served as the Chief Executive Officer and a member of the board of directors of Melinta Therapeutics, Inc., an antibiotic development company, from April 2013 to August 2015. Ms. Szela held ascending management positions at Abbott Laboratories from 1987 to 2012, including President of the company's U.S. pharmaceutical business from January 2008 to December 2010. Ms. Szela has served as a member of the public boards of directors of Kura Oncology, Inc. since November 2018, Prometheus Biosciences since March of 2021, Coherus Biosciences from July 2014 to August 2021 and Alimera Sciences Inc. from June 2018 to March 2021. Ms. Szela has also served as a member of the board of directors of TriSalus Life Sciences, Inc., a privately held company, since January 2018, and Senda Biosciences, a privately held company, since July 2019, Coherus Biosciences from July 2014 to August 2021 and Alimera Sciences Inc. from June 2018 to March 2014 to July 2015, Novo Nordisk from March 2014 to March 2017, Macrolide Pharmaceuticals from March 2018 to July 2019, Coherus Biosciences from July 2014 to August 2021 and Alimera Sciences Inc. from June 2018 to March 2014 to August 2021 and Alimera Sciences Inc. from June 2018 to March 2014 to July 2014 to August 2021 and Alimera Sciences Inc. from June 2018 to March 2018, Noro Nordisk from March 2014 to March 2018 to July 2019, Coherus Biosciences from July 2014 to August 2021 and Alim

Richard A. Young, Ph.D.

Richard A. Young has served on our Board since August 2017. He has been a Member of the Whitehead Institute and Professor of Biology at MIT since 1984 and an Affiliate Member of the Broad Institute since 2004. He was elected into the National Academy of

8

Sciences in May 2012 and the National Academy of Medicine in October 2019. Dr. Young has served as an advisor to the National Institutes of Health and the World Health Organization. He currently serves on the board of directors of Syros Pharmaceuticals, Inc., a public biotechnology company, and on the boards of directors of Camp4 Therapeutics, Inc., Dewpoint Therapeutics, Inc. and Paratus Sciences, Inc., each a private biotechnology company. Dr. Young received his Ph.D. in molecular biophysics and biochemistry from Yale University. We believe Dr. Young is qualified to serve on our Board because of his scientific expertise.

Continuing members of the Board of Directors:

Class I Directors (terms to expire at the 2025 Annual Meeting)

The current members of the Board of Directors who are Class I Directors are as follows:

Name	Age	Served as a Director Since	Position with Omega
Noubar B. Afeyan, Ph.D.	60	2016	Chairman of the Board of Directors
Mahesh Karande	50	2019	President, Chief Executive Officer and Director

The principal occupations and business experience, for at least the past five years, of each Class I Director are as follows:

Noubar B. Afeyan, Ph.D.

Noubar B. Afeyan was a co-founder and serves as Chairman of our Board and has been a director since July 2016. In 1999, Dr. Afeyan founded Flagship Pioneering, a life sciences venture capital company, and serves as its Senior Managing Partner and Chief Executive Officer. Since August 2009, Dr. Afeyan has served on the board of directors of Moderna, Inc. He currently serves on the boards of numerous privately held companies, and has previously served on the boards of numerous privately and publicly held companies, including Rubius Therapeutics, Inc., Evelo Biosciences, Inc., Kaleido Biosciences, Inc. and Seres Therapeutics, Inc. He received a Ph.D. in biochemical engineering from the Massachusetts Institute of Technology and a B.S. in chemical engineering from McGill University. Dr. Afeyan was previously a visiting lecturer of business administration at Harvard Business School and was previously a senior lecturer at MIT's Sloan School of Management where he taught courses on technology-entrepreneurship, innovation and leadership. We believe that Dr. Afeyan's significant experience co-founding, leading, and investing in numerous biotechnology companies makes him qualified to serve on our Board.

Mahesh Karande

Mahesh Karande has served as the President and Chief Executive Officer and as a member of our Board since April 2019. From April 2018 to March 2019, Mr. Karande served as President and CEO of Macrolide Pharmaceuticals (subsequently Zikani Therapeutics), a biotechnology company. From March 2010 to April 2017, Mr. Karande held senior leadership roles at Novartis, including VP and Franchise Head, US Oncology, President Novartis Africa and President Novartis Egypt. Mr. Karande holds an M.B.A. from the Wharton School, University of Pennsylvania. He is also a graduate of the Georgia Institute of Technology where he completed his M.S. in engineering and the University of Bombay where he completed his undergraduate studies in engineering. He also currently serves on the board of directors of KSQ Therapeutics. We believe that Mr. Karande's extensive experience in running, building, and leading businesses, and organizations in biopharmaceuticals across various geographies qualifies him to serve on our Board.

Class III Directors (terms to expire at the 2024 Annual Meeting)

The current members of the Board of Directors who are Class III Directors are as follows:

Name	Age	Served as a Director Since	Position with Omega
Luke M. Beshar	63	2021	Director
Rainer J. Boehm, M.D.	62	2022	Director
Elliott M. Levy, M.D.	63	2021	Director

The principal occupations and business experience, for at least the past five years, of each Class III Director are as follows:

Luke M. Beshar

Luke M. Beshar has served as a member of our Board since May 2021. Mr. Beshar has served as a director of Protara Therapeutics, Inc., a publicly held company focused on immune-oncology and rare diseases, since October 2018 and has served as Chairperson of the board of directors since January 2020. Mr. Beshar has served as Chairperson of the board of directors of Inotrem Therapeutic SA, an advanced clinical stage biotech company specialized in immunotherapy to control dysregulated inflammatory reactions since May 2022. Mr. Beshar served as a director of Trillium Therapeutics Inc., a publicly held immuno-oncology company, from March 2014 until November 2021 when the company was acquired by Pfizer, Inc. Mr. Beshar served as a director of REGENXBIO Inc., a publicly held gene therapy company, from May 2015 until September 2021. Mr. Beshar previously was the Executive/Senior Vice President and Chief Financial Officer of NPS Pharmaceuticals, Inc., a global biopharmaceutical company from November 2007 to February 2015 when the company was acquired by Shire plc and Executive Vice President and Chief Financial Officer of Cambrex Corporation, a publicly held life sciences company, from December 2002 to November 2007. Mr. Beshar holds a B.S. degree in Accounting and Finance from Michigan State University and is a graduate of The Executive Program at the Darden Graduate School of Business at the University of Virginia and is a Certified Public Accountant. We believe that Mr. Beshar's extensive leadership experience in the pharmaceutical industry qualifies him to serve on our Board.

Rainer J. Boehm, M.D.

Rainer J. Boehm has served as a member of our Board since September 2022. Mr. Boehm held several senior management positions during his tenure at Novartis Pharma AG and its predecessor, CIBA-Geigy, spanning from 1988 to 2017, most recently as Chief Commercial & Medical Affairs Officer. Mr. Boehm currently serves on the boards of directors of Cellectis SA and Humanigen Inc and previously served on the board of directors of Nordic Nanovector S.A. from July 2018 to April 2022. He holds a medical degree from the University of Ulm in Germany, and a Master of Business Administration from Schiller University, Strasbourg Campus in France. We believe that Mr. Boehm's significant leadership experience in the pharmaceutical industry, including his clinical and managerial experience, qualifies him to serve on our board of directors.

Elliott M. Levy, M.D.

Elliott M. Levy has served on our Board since March 2021. Dr. Levy served as Senior Vice President of Global Development of Amgen from September 2014 to June 2020 and Senior Vice President of R&D Strategy and Operations from June 2020 to May 2021. He has served on the board of directors of NuCana plc since November 2021. Dr. Levy received his M.D. from Yale University and his B.A. from Yale College. We believe Dr. Levy is qualified to serve on our Board because of his scientific expertise and experience in the industry.

Board Diversity Matrix

Board Diversity Matrix (As of April 25, 2023)								
Total Number of Directors			8					
	Female	Male	Non-Binary	Did Not Disclose Gender				
Part I: Gender Identity								
Directors	1	7						
Part II: Demographic Background								
African American or Black								
Alaskan Native or Native American								
Asian		1						
	10							

Hispanic or Latinx		
Native Hawaiian or Pacific Islander		
White	1	6
Two or More Races or Ethnicities		
LGBTQ+		
Did Not Disclose Demographic Background		

Proposal 2: Ratification of Appointment of Independent Registered Public Accounting Firm

Our Audit Committee has appointed Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2023. Our Board has directed that this appointment be submitted to our stockholders for ratification at the Annual Meeting. Although ratification of our appointment of Deloitte & Touche LLP is not required, we value the opinions of our stockholders and believe that stockholder ratification of our appointment is a good corporate governance practice.

Deloitte & Touche LLP also served as our independent registered public accounting firm for the fiscal year ended December 31, 2022. Neither the accounting firm nor any of its members has any direct or indirect financial interest in or any connection with us in any capacity other than as our auditors, providing audit and non-audit services. A representative of Deloitte & Touche LLP is expected to attend the 2023 Annual Meeting and to have an opportunity to make a statement and be available to respond to appropriate questions from stockholders.

In the event that the appointment of Deloitte & Touche LLP is not ratified by the stockholders, the Audit Committee will consider this fact when it appoints the independent auditors for the fiscal year ending December 31, 2024. Even if the appointment of Deloitte & Touche LLP is ratified, the Audit Committee retains the discretion to appoint a different independent auditor at any time if it determines that such a change is in the interest of the Company.

Vote Required

This proposal requires the affirmative vote of the holders of a majority in voting power of the votes cast. Abstentions are not considered to be votes cast and, accordingly, will have no effect on the outcome of the vote on this proposal. Because brokers have discretionary authority to vote on the ratification of the appointment of Deloitte & Touche LLP, we do not expect any broker non-votes in connection with this proposal.

Recommendation of the Board of Directors

The Board of Directors unanimously recommends a vote FOR the Ratification of the Appointment of Deloitte & Touche LLP as our Independent Registered Public Accounting Firm for the fiscal year ending December 31, 2023.



REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee has reviewed the audited consolidated financial statements of Omega Therapeutics, Inc. (the "Company") for the fiscal year ended December 31, 2022 and has discussed these financial statements with management and the Company's independent registered public accounting firm. The Audit Committee has also received from, and discussed with, the Company's independent registered public accounting firm various communications that such independent registered public accounting firm is required to provide to the Audit Committee, including the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board ("PCAOB") and the Securities and Exchange Commission.

The Company's independent registered public accounting firm also provided the Audit Committee with a formal written statement required by PCAOB Rule 3526 (*Communications with Audit Committees Concerning Independence*) describing all relationships between the independent registered public accounting firm and the Company, including the disclosures required by the applicable requirements of the PCAOB regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence. In addition, the Audit Committee discussed with the independent registered public accounting firm its independence from the Company.

Based on its discussions with management and the independent registered public accounting firm, and its review of the representations and information provided by management and the independent registered public accounting firm, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022. Luke M. Beshar (Chair)

Rainer J. Boehm, M.D. Mary T. Szela

12

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FEES AND OTHER MATTERS

The following table summarizes the fees of Deloitte & Touche LLP, our independent registered public accounting firm, billed to us for each of the last two fiscal years for audit services and billed to us in each of the last two fiscal years for other services:

Fee Category	2022	2021
Audit Fees	\$715,315	\$1,424,213
Audit-Related Fees	—	—
Tax Fees		
All Other Fees	1,895	1,895
Total Fees	\$717,210	\$1,426,108

Audit Fees

Audit fees consist of aggregate fees for professional services provided in connection with the annual audit of our consolidated financial statements, the review of our quarterly condensed consolidated financial statements, consultations on accounting matters directly related to the audit, and comfort letters, consents and assistance with and review of documents filed with the SEC.

All Other Fees

All other fees consist of aggregate fees billed for products and services provided by our independent registered public accounting firm other than those disclosed above, including fees for accessing Deloitte & Touche LLP's online accounting research tool.

Audit Committee Pre-Approval Policy and Procedures

The Audit Committee has adopted a policy (the "Pre-Approval Policy") that sets forth the procedures and conditions pursuant to which audit and non-audit services proposed to be performed by the independent auditor may be pre-approved. The Pre-Approval Policy generally provides that we will not engage Deloitte & Touche LLP to render any audit, audit-related, tax or permissible non-audit service unless the service is either (i) explicitly approved by the Audit Committee ("specific pre-approval") or (ii) entered into pursuant to the pre-approval policies and procedures described in the Pre-Approval Policy ("general pre-approval"). Unless a type of service to be provided by Deloitte & Touche LLP has received general pre-approval under the Pre-Approval Policy, it requires specific pre-approvals. Any proposed services exceeding pre-approved cost levels or budgeted amounts will also require specific pre-approval. For both types of pre-approval, the Audit Committee will consider whether such services are consistent with the SEC's rules on auditor independence. The Audit Committee will also consider whether the independent auditor is best positioned to provide the most effective and efficient service, for reasons such as its familiarity with the Company's business, people, culture, accounting systems, risk profile and other factors, and whether the service is ensited the audit Committee will committee may review and pre-approve the services (and related fee levels or budgeted amounts) that may be provided by Deloitte & Touche LLP without first obtaining specific pre-approval from the Audit Committee may review for the approve audit quality. All such factors will be considered as a whole, and no one factor should necessarily be determinative. The Audit Committee may review and pre-approval from the Audit Committee. The Audit Committee may review the services (and related fee levels or budgeted amounts) that may be provided by Deloitte & Touche LLP without first obtaining specific pre-approval from the Audit Committee may



EXECUTIVE OFFICERS

The following table identifies our current executive officers:

Name	Age	Position
Mahesh Karande (1)	50	President, Chief Executive Officer and Director
Joshua Reed (2)	50	Chief Financial Officer
Thomas McCauley, Ph.D. (3)	54	Chief Scientific Officer
Yan Moore, M.D. (4)	57	Chief Medical Officer
Kevin McManus (5)	55	Chief Human Resources Officer
Ling Zeng (6)	54	Chief Legal and Administrative Officer

(1) See biography on page 9 of this proxy statement.

- (2) Joshua Reed has served as the Chief Financial Officer of our Company since May 2022. Mr. Reed served as the Chief Financial Officer at Aldeyra Therapeutics, a biotechnology company, from July 2018 to May 2022, where he was responsible for finance, business development, investor relations, compliance, human resources, and information technology. During his time at Aldeyra, Mr. Reed led multiple capital raises, oversaw the company's interactions with current and prospective investors and managed all aspects of the company's financial processes, including quarterly and annual SEC filings. Prior to Aldeyra, Mr. Reed held a variety of finance roles of increasing responsibility at Bristol-Myers Squibb, most recently serving as Vice President and Head of Finance Operations for the United States and Puerto Rico from June 2016 to July 2018. While at Bristol-Myers Squibb, Mr. Reed also led financial planning and analysis and worked on various acquisitions, divestitures, alliances, and collaboration agreements. Earlier in his career, Mr. Reed held positions at JP Morgan Chase, Credit Suisse First Boston, and Chase Manhattan Bank. He also currently serves on the board of directors and as Chairman of the Audit Committee of Scholar Rock, a publicly traded biotechnology company. Mr. Reed received his Bachelor of Science in Finance from Rutgers University and his Master of Business Administration from the University of Michigan's Ross School of Business.
- (3) Thomas McCauley, Ph.D., has served as the Chief Scientific Officer of our Company since July 2019. From September 2018 to July 2019, Dr. McCauley served as Chief Scientific Officer of Macrolide Pharmaceuticals (subsequently Zikani Therapeutics), a biotechnology company, and as Chief Scientific Officer of Translate Bio (formerly RaNA Therapeutics), a clinical stage therapeutics company, from September 2016 to April 2018. From April 2010 to August 2016, Dr. McCauley served as vice president and head of Global Nonclinical Development at Shire Pharmaceuticals, where he contributed to the development and global approvals of many of Shire's products, including Replagal® for Fabry disease, Vpriv® for Gaucher disease, Elaprase® for Hunter syndrome, Firazyr® for hereditary angioedema and Xiidra® for dry eye disease. Dr. McCauley holds a Ph.D. from the University of Alabama at Birmingham and a B.S. and M.Eng. from Cornell University.
- (4) Yan Moore, M.D., has served as the Chief Medical Officer of our Company since January 2022. From September 2018 to December 2021, Dr. Moore served as Senior Vice President, Head of Oncology Therapeutic Area at Ipsen Pharmaceuticals, a biopharmaceutical company. From September 2016 to September 2018, Dr. Moore was the Chief Medical Officer and Senior Vice President of Clinical Development and Research and Development at Anchiano Therapeutics (previously BioCanCell Therapeutics), a biotechnology company. Earlier in his career, Dr. Moore held various roles of increasing responsibility spanning global medical affairs and clinical development at Ariad, Sanofi, GlaxoSmithKline and Bristol Myers-Squibb. As a clinician, Dr. Moore spent time at Sapir Medical Center, Meir Hospital and Edith Wolfson Medical Center. Dr. Moore received his Medical degree and Bachelor of Medical Sciences from the Sackler School of Medicine at Tel Aviv University, Master of Business Administration from the LeBow College of Business at Drexel University, and completed the Advanced Management Program at Harvard Business School.
- (5) Kevin McManus has served as the Chief Human Resources Officer of our Company since March 2022. From August 2019 to December 2021, Mr. McManus served as Senior Vice President and Chief Human Resources Officer at Acceleron Pharmaceuticals, a biopharmaceutical company, where he was responsible for leading human resources, information technology and facilities functions. From April 2013 to July 2019, Mr. McManus held a variety of human resources roles of increasing responsibility at Bayer, most recently serving as Vice President and Human Resources Business Partner, Bayer Pharmaceuticals (Americas). Earlier in his career, Mr. McManus held senior human resources roles at Mylan Inc., The Ladders.com, ConvaTec, Inc., Bristol-Myers Squibb Company and GTE Corporation. Mr. McManus received his Bachelor of Science in Industrial and Labor Relations from Cornell University and Master Organization Development Practitioner from Ashridge University.
- (6) Ling Zeng has served as the Chief Legal and Administrative Officer of our Company since March 2022. From September 2020 to March 2022, Ms. Zeng recently served as Chief Legal Officer and Secretary at Dicerna Pharmaceuticals, a

14

biopharmaceutical company, where she worked alongside other executives, the board of directors and their committees to develop and implement company strategy, policy, compliance, and governance activities. From August 2017 to September 2020, Ms. Zeng served as Deputy Head Legal, Group Mergers and Acquisitions, at Novartis AG, where she was responsible for global transactions across the Novartis Group, including all business units and regions. Prior to this, she served in various legal executive roles of increasing responsibility at Bausch Health Companies, Inc., Penwest Pharmaceuticals Co. and Barr Laboratories, Inc. Ms. Zeng began her legal career at Cleary, Gottlieb, Steen and Hamilton and, prior to that, also spent time as a researcher at Alkermes Inc. and LeukoSite Inc. Ms. Zeng earned her Bachelor of Science in Physics from Peking University, Master of Science in Biophysics from Brandeis University, and her Juris Doctorate from Georgetown University.

CORPORATE GOVERNANCE

General

Our Board of Directors has adopted Corporate Governance Guidelines, a Code of Business Conduct and Ethics, and charters for our Nominating and Corporate Governance Committee and Compensation Committee to assist the Board in the exercise of its responsibilities and to serve as a framework for the effective governance of the Company. You can access our current committee charters, our Corporate Governance Guidelines, and our Code of Business Conduct and Ethics in the "Corporate Governance" section of the "Investors & Media" page of our website located at *www.omegatherapeutics.com*, or by writing to our Secretary at our offices at 20 Acorn Park Drive, Cambridge, Massachusetts 02140.

Board Composition

Our Board of Directors currently consists of eight members: Noubar B. Afeyan, Ph.D., Luke M. Beshar, Rainer J. Boehm, M.D., Mahesh Karande, Elliott M. Levy, M.D., John Mendlein, Ph.D., J.D., Mary T. Szela and Richard A. Young, Ph.D. As set forth in our Restated Certificate of Incorporation, the Board of Directors is currently divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our Restated Certificate of Incorporation and Amended and Restated Bylaws provide that the authorized number of directors may be changed only by resolution of the Board of Directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our Board of Directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of our capital stock entitled to vote in the election of directors.

Director Independence

Luke M. Beshar, Rainer J. Boehm, M.D., Elliott M. Levy, M.D., John Mendlein, Ph.D., J.D., Mary T. Szela and Richard A. Young, Ph.D. each qualify as "independent" in accordance with the listing requirements of Nasdaq. The Nasdaq independence definition includes a series of objective tests, including that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his family members has engaged in various types of business dealings with us. In addition, as required by Nasdaq rules, our Board of Directors has made a subjective determination as to each independent director that no relationships exist, which, in the opinion of our Board of Directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In making these determinations, our Board of Directors reviewed and discussed information provided by the directors and us with regard to each director's business and personal activities and relationships as they may relate to us and our management, including that Dr. Afeyan and Dr. Mendlein are affiliated with Flagship Pioneering, one of our significant stockholders. David A. Berry, M.D., Ph.D. was independent during the period he served on our Board of Directors in 2022. There are no family relationships among any of our directors or executive officers.

Director Candidates

The Nominating and Corporate Governance Committee is primarily responsible for searching for qualified director candidates for election to the Board and filling vacancies on the Board. To facilitate the search process, the Nominating and Corporate Governance Committee may solicit current directors and executives of the Company for the names of potentially qualified candidates or ask directors and executives to pursue their own business contacts for the names of potentially qualified candidates. The Nominating and Corporate Governance Committee may also consult with outside advisors or retain search firms to assist in the search for qualified candidates, or consider director candidates recommended by our stockholders. Once potential candidates are identified, the Nominating and Corporate Governance Committee reviews the backgrounds of those candidates, evaluates candidates' independence from the Company and potential conflicts of interest and determines if candidates meet the qualifications desired by the Nominating and Corporate Governance Committee for candidates for election as a director. John Mendlein, Ph.D., one of our Class II Director nominees, was recommended by Flagship Pioneering, one of our significant stockholders. Mary T. Szela and Richard A. Young, Ph.D., also Class II Director nominees, were recommended by our Chief Executive Officer and founding partner and our founding partner, respectively.

In evaluating the suitability of individual candidates (both new candidates and current Board members), the Nominating and Corporate Governance Committee, in recommending candidates for election, and the Board, in approving (and, in the case of vacancies, appointing) such candidates, 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

16

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. The Board evaluates each individual in the context of the Board as a whole, with the objective of assembling a group that can best perpetuate the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas. In determining whether to recommend a director for re-election, the Nominating and Corporate Governance Committee may also consider the director's past attendance at meetings and participation in and contributions to the activities of the Board.

Stockholders may recommend individuals to the Nominating and Corporate Governance Committee for consideration as potential director candidates by submitting the names of the recommended individuals, together with appropriate biographical information and background materials, to the Nominating and Corporate Governance Committee, c/o Secretary, Omega Therapeutics, Inc., 20 Acorn Park Drive, Cambridge, Massachusetts 02140. In the event there is a vacancy, and assuming that appropriate biographical and background material has been provided on a timely basis, the Nominating and Corporate Governance Committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Communications from Stockholders

The Board will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate. Our Secretary is primarily responsible for monitoring communications from stockholders and for providing copies or summaries to the directors as she considers appropriate.

Communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that our Secretary and Chairman of the Board consider to be important for the directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which we tend to receive repetitive or duplicative communications. Stockholders who wish to send communications on any topic to the Board should address such communications to the Board of Directors in writing: c/o Secretary, Omega Therapeutics, Inc., 20 Acorn Park Drive, Cambridge, Massachusetts 02140.

Board Leadership Structure and Role in Risk Oversight

Our Amended and Restated Bylaws and Corporate Governance Guidelines provide our Board of Directors with flexibility to combine or separate the positions of Chairman 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 our Company. We currently have a non-employee Chairman of the Board and a majority of our Board is comprised of independent directors. While the Chairman of the Board is not an independent director, our Board believes that separation of the positions of Chairman and Chief Executive Officer, combined with the independent leadership of each of our Board committees, reinforces the independence of the Board from management, creates an environment that encourages objective oversight of management's performance and enhances the effectiveness of the Board as a whole. For these reasons, our Board of Directors has concluded that our current leadership structure is appropriate at this time.

However, our Board of Directors will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate. Our Corporate Governance Guidelines provide that, where the Chair of the Board is a member of management or not independent, the independent directors may appoint a Lead Director. If appointed, the Lead Director's responsibilities would include, but would not be limited to, presiding over all meetings of the Board of Directors at which the Chairman of the Board is not present, including any executive sessions of the independent directors, approving the Board's meeting schedules and agendas, and acting as liaison between the independent directors of the Board and the Chief Executive Officer and the Chairman of the Board.

Risk assessment and oversight are an integral part of our governance and management processes. Our Board of Directors encourages management to promote a culture that incorporates risk management into our corporate strategy and day-to-day business operations. Management discusses strategic and operational risks at regular management meetings and conducts specific strategic planning and review sessions during the year that include a focused discussion and analysis of the risks facing us. Throughout the year, senior management reviews these risks with the Board of Directors at regular Board meetings as part of management presentations that focus on particular business functions, operations or strategies, and presents the steps taken by management to mitigate or eliminate such risks. Our Board of Directors does not have a standing risk management committee, but rather administers this oversight function directly through the Board of Directors as a whole, as well as through various standing committees of the Board of Directors that address risks inherent in their respective areas of oversight. In particular, our Board of Directors is responsible for monitoring and assessing strategic risk exposure and our Audit Committee is responsible for overseeing our major financial and cybersecurity risk



exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The Audit Committee also monitors compliance with legal and regulatory requirements and considers and approves or disapproves any related person transactions. Our Nominating and Corporate Governance Committee monitors the effectiveness of our corporate governance practices. Our Compensation Committee assesses and monitors whether any of our compensation policies and programs have the potential to encourage excessive risk-taking. The Board does not believe that its role in the oversight of our risks affect the Board's leadership structure.

Code of Ethics

We have a written Code of Business Conduct and Ethics that applies to our directors, officers and employees, including our principal executive officer, principal accounting officer or controller, or persons performing similar functions. We have posted a current copy of the Code of Business Conduct and Ethics on our website, *www.omegatherapeutics.com*, in the "Investors & Media" section under "Corporate Governance." In addition, we intend to post on our website all disclosures that are required by law or the rules of Nasdaq concerning any amendments to, or waivers from, any provision of the Code of Business Conduct and Ethics.

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 and any entities they control 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 the Company's equity securities, or that may cause an officer, director, or employee to no longer have the same objectives as the Company's other stockholders.

Attendance by Members of the Board of Directors at Meetings

There were nine meetings of the Board of Directors during the fiscal year ended December 31, 2022. During the fiscal year ended December 31, 2022, each director attended at least 75% of the aggregate of (i) all meetings of the Board of Directors and (ii) all meetings of the committees on which the director served during the period in which he or she served as a director.

Under our Corporate Governance Guidelines, which are available on our website at *www.omegatherapeutics.com*, a director is expected to spend the time and effort necessary to properly discharge his or her responsibilities. Accordingly, a director is expected to regularly prepare for and attend meetings of the Board and all committees on which the director sits (including separate meetings of the independent directors), with the understanding that, on occasion, a director may be unable to attend a meeting. A director who is unable to attend a meeting of the Board or a committee of the Board is expected to notify the Chairman of the Board or the Chairman of the appropriate committee in advance of such meeting, and, whenever possible, participate in such meeting via teleconference in the case of an in-person meeting. We do not maintain a formal policy regarding director attendance at the Annual Meeting; however, it is expected that absent compelling circumstances directors will attend. All of our then-incumbent members of the Board attended the 2022 Annual Meeting of Stockholders.

COMMITTEES OF THE BOARD

Our Board has established four standing committees—Audit, Compensation, Nominating and Corporate Governance and Research and Development and Science—each of which operates under a written charter that has been approved by our Board.

The members of each of the Board committees and committee Chairpersons are set forth in the following chart.

Name	Audit	Compensation	Nominating and Corporate Governance	Research and Development and Science
Luke M. Beshar	Chairperson			
Rainer J. Boehm, M.D.	Х	Х		
Elliott M. Levy, M.D.			Х	Chairperson
John Mendlein, Ph.D., J.D.		Х	Chairperson	Х
Mary T. Szela	Х	Chairperson		
Richard A. Young, Ph.D.			Х	Х

Audit Committee

Our Audit Committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent 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 with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- coordinating the Board of Directors' oversight of our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- discussing our risk management policies;
- establishing procedures for the receipt, retention and treatment of accounting related complaints and concerns;
- meeting independently with our internal auditing staff, if any, independent registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by the SEC rules (which is included on page 12 of this proxy statement).

The Audit Committee charter is available on our website at *www.omegatherapeutics.com*. The members of the Audit Committee are Luke M. Beshar, Rainer J. Boehm, M.D. and Mary T. Szela. Mr. Beshar serves as the Chairperson of the committee. Our Board has affirmatively determined that each of Mr. Beshar, Mr. Boehm and Ms. Szela is independent for purposes of serving on an audit committee under Rule 10A-3 promulgated under the Exchange Act and that each of Mr. Beshar, Mr. Boehm and Ms. Szela meets the independence requirements of the Nasdaq Rules, including those related to Audit Committee membership.

The members of our Audit Committee meet the requirements for financial literacy under the applicable Nasdaq rules. In addition, our Board of Directors has determined that Mr. Beshar qualifies as an "audit committee financial expert," as such term is defined in Item 407(d)(5) of Regulation S-K, and under the similar Nasdaq Rules requirement that the Audit Committee have a financially sophisticated member.

The Audit Committee met four times in 2022.



Compensation Committee

Our Compensation Committee's responsibilities include:

- reviewing and approving, or recommending for approval by the Board, the compensation of our CEO and our other executive officers;
- overseeing and administering our cash and equity incentive plans;
- reviewing and making recommendations to the 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, to the extent required by SEC rules.

Pursuant to the Compensation Committee's charter, which is available on our website at *www.omegatherapeutics.com*, 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. In 2022, the Compensation Committee engaged Pay Governance LLC ("Pay Governance"), a compensation consulting firm, to assist in making decisions regarding the amount and types of compensation to provide our executive officers and non-employee directors. Pay Governance reports directly to the Compensation Committee. The Compensation Committee has considered the adviser independence factors required under SEC rules as they relate to Pay Governance and has determined that Pay Governance's work does not raise a conflict of interest.

The Compensation Committee may delegate its authority under its charter to one or more subcommittees as it deems appropriate from time to time. The Compensation Committee may also delegate to an officer the authority to grant equity awards to certain employees, as further described in its charter and subject to the terms of our equity plans.

The members of our Compensation Committee are Rainer J. Boehm, M.D., John Mendlein, Ph.D., J.D. and Mary T. Szela. Ms. Szela serves as the Chairperson of the Compensation Committee. Each of Mr. Boehm, Dr. Mendlein and Ms. Szela qualifies as an independent director under Nasdaq's heightened independence standards for members of a compensation committee, and each of Mr. Boehm and Ms. Szela qualifies as a "non-employee director" as defined in Rule 16b-3 of the Exchange Act. During his service on the Compensation Committee in 2022, Dr. Afeyan did not qualify as an independent director under Nasdaq rules.

The Compensation Committee met seven times in 2022.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee's responsibilities include:

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

The Nominating and Corporate Governance Committee charter is available on our website at *www.omegatherapeutics.com*. The members of our Nominating and Corporate Governance Committee are Elliott M. Levy, M.D., John Mendlein, Ph.D., J.D. and Richard A. Young, Ph.D. Dr. Mendlein serves as the Chairperson of the Nominating and Corporate Governance Committee. Our Board of Directors has determined that Dr. Levy, Dr. Mendlein and Dr. Young are independent under the applicable Nasdaq rules. The Nominating and Corporate Governance Committee has the authority to consult with outside advisors or retain search firms to assist in the search for qualified candidates, or consider director candidates recommended by our stockholders.

The Nominating and Corporate Governance Committee held one meeting in 2022.

20

Research and Development and Science Committee

Our Research and Development and Science Committee's responsibilities include:

- reviewing our current and planned platform and pipeline; and
- advising the Board of Directors in matters relating to clinical and product development.

The Research and Development and Science Committee charter is available on our website at *www.omegatherapeutics.com*. The members of our Research & Development and Science Committee are Elliott M. Levy, M.D., John Mendlein, Ph.D., J.D. and Richard A. Young, Ph.D. Dr. Levy serves as the Chairperson of the Research & Development and Science Committee.

The Research and Development and Science Committee held five meetings in 2022.



EXECUTIVE AND DIRECTOR COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the "2022 Summary Compensation Table" below. In 2022, our "named executive officers" and their positions were as follows:

- Mahesh Karande, President and Chief Executive Officer;
- Yan Moore, M.D., Chief Medical Officer;
- Ling Zeng, Chief Legal & Administrative Officer; and
- Roger Sawhney, M.D., Former Chief Business Officer.

Dr. Sawhney served as our Chief Financial Officer from January 1, 2022, until Mr. Reed's appointment as Chief Financial Officer effective May 23, 2022. Following Mr. Reed's appointment, Dr. Sawhney continued in employment with us as our Chief Business Officer until his departure in July 2022.

2022 Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the years shown.

Name and Principal Position	Year	Salary (\$)	Bonus (\$) ⁽¹⁾	Option Awards (\$) ⁽²⁾	Non-Equity Incentive Plan Compensation (\$) ⁽³⁾	All Other Compensation (\$) ⁽⁴⁾	Total (\$)
Mahesh Karande, President and Chief	2022	\$ 555,833	—	\$ 3,007,300	\$ 246,400	\$ 10,650	\$ 3,820,183
Executive Officer	2021	\$ 512,427	_	\$ 3,656,593	\$ 267,500	\$ 259,778	\$ 4,696,298
Yan Moore, M.D. ⁽⁵⁾ , Chief Medical Officer	2022	\$ 505,000	\$ 458,000	\$ 3,862,247	\$ 167,660	\$ 10,650	\$ 5,003,557
Ling Zeng ⁽⁶⁾ , Chief Legal & Administrative Officer	2022	\$ 332,942	_	\$ 1,350,450	\$ 111,092	\$ 8,738	\$ 1,803,222
Roger Sawhney, MD ⁽⁷⁾ ,	2022	\$ 239,167	_	\$ 1,392,950	—	\$ 190,474	\$ 1,822,591
Former Chief Business Officer	2021	\$ 378,142	_	\$ 392,293	\$ 160,000	\$ 50,785	\$ 981,220

(1) Amount reported for Dr. Moore reflects a sign-on bonus.

(2) Amounts reflect the full grant date fair value of option awards granted during 2022 computed in accordance with ASC Topic 718, *Compensation—Stock Compensation*, or ASC Topic 718, rather than the amounts paid to or realized by the named individual. We provide information regarding the assumptions used to calculate the value of option awards in Note 13 to the consolidated financial statements included in our Annual Report on Form 10-K filed on March 1, 2023.

- (3) Amounts shown represent each named executive officer's annual bonus earned with respect to fiscal year 2022. Refer to "2022 Annual bonuses" below for additional information regarding the Company's annual bonus program for 2022.
- (4) The amount reported for Mr. Karande for fiscal year 2022 includes 401(k) matching contributions of \$9,150 and cell phone stipend of \$1,500. The amount reported for Dr. Moore for fiscal year 2022 includes 401(k) matching contributions of \$9,150 and cell phone stipend of \$1,500. The amount reported for Ms. Zeng includes 401(k) matching contributions of \$7,613 and cell phone stipend of \$1,125. The amounts reported for Dr. Sawhney for fiscal year 2022 include severance payments of \$172,500, accrued vacation of \$13,933, 401(k) matching contributions of \$3,166, and cell phone stipend of \$875.
- (5) Dr. Moore's employment commenced January 3, 2022.
- (6) Ms. Zeng's employment commenced March 28, 2022.
- (7) Dr. Sawhney's employment terminated on July 29, 2022.

Narrative Disclosure to Summary Compensation Table

2022 Salaries

The named executive officers receive a base salary to compensate them for services rendered to our company. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. For 2022, the annual base salaries for Mr. Karande, Dr. Moore, Ms. Zeng, and Dr. Sawhney were \$560,000, \$505,000, \$435,000, and \$414,000, respectively. The base salaries for Mr. Karanda and Dr. Sawhney were effective March 1, 2022.

2022 Annual Bonuses

Each of Mr. Karande, Dr. Moore, and Ms. Zeng was eligible to receive an annual bonus under the annual bonus program we maintain for all employees. For 2022, the target bonus amounts, expressed as a percentage of base salary, for Mr. Karande, Dr. Moore, and Ms. Zeng were 55%, 40%, and 40%, respectively. Annual bonuses for 2022 were based on the attainment of both corporate and individual performance goals as recommended by the compensation committee and determined by the board of directors. The corporate performance goals for 2022 were based on the achievement of company growth metrics, developing the Company's research and development programs, and financing objectives. The individual performance goals for 2022, were based on each named executive officer's performance in his or her individually assigned duties and responsibilities. For 2022, Mr. Karande received a bonus equal to 80% of his target amount, or \$246,400, Dr. Moore received a bonus equal to 83% of his pro-rated target amount, or \$167,660, and Ms. Zeng were to reflect their partial year of employment. Dr. Sawhney was not eligible for a 2022 bonus due to his departure in July 2022.

Equity compensation

We generally offer stock options to our employees, including our named executive officers, as the long-term incentive component of our compensation program. Our stock options generally allow employees to purchase shares of our common stock at a price equal to the fair market value of our common stock on the date of grant, as determined by the board of directors. The stock options granted to our named executive officers generally vest as to 25% of the underlying shares on the first anniversary of the date of grant and in equal quarterly installments over the following three years. Historically, our stock options have been intended to qualify as "incentive stock options," to the extent permitted under the Internal Revenue Code, or the Code.

In connection with our initial public offering, we adopted, and our stockholders approved, the 2021 Incentive Award Plan, referred to below as the 2021 Plan, in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of our company and certain of its affiliates and to enable our company and certain of its affiliates to obtain and retain the services of these individuals. Prior to our initial public offering, we granted equity awards under our 2017 Equity Incentive Plan, referred to as the 2017 Plan; we ceased making grants under the 2017 Plan upon the effective date of our 2021 Plan, but the 2017 Plan continues to govern the terms and conditions of the outstanding awards granted under it.

Employee and retirement benefits

We currently offer broad based health and welfare benefits, including health, life, disability, vision, and dental insurance to our named executive officers to the same extent as our other full-time employees, subject to the terms and eligibility requirements of those plans. In addition to the health and welfare benefits, we maintain a 401(k) retirement plan for our full-time employees, including our named executive officers. The 401(k) plan permits us to make discretionary employer contributions. For 2022, Mr. Karande, Dr. Moore, Ms. Zeng, and Dr. Sawhney received 401(k) matching contributions of \$9,150, \$9,150, \$7,613, and \$3,166 respectively. Other than the 401(k) plan, we do not provide any qualified or non-qualified retirement or deferred compensation benefits to our employees, including our named executive officers are eligible to participate in the 401(k) plan on the same terms as other full-time employees.

Outstanding Equity Awards at 2022 Fiscal Year-End

The following table summarizes the number of shares of common stock underlying outstanding equity incentive plan awards for each named executive officer as of December 31, 2022.

		Option Awards							
Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)	Option Expiration Date				
Mahesh Karande	6/24/2019 (1)	758,849	125,223	0.53	6/23/2029				
	1/26/2020 (1)	285,584	40,798	0.60	1/25/2030				
	3/29/2021 (2)	410,194	527,394	5.67	3/29/2031				
	3/9/2022 (3)	_	340,000	10.34	3/8/2032				
	10/27/2022 (4)	_	170,000	5.27	10/26/2032				
Yan Moore, M.D.	1/31/2022 (5)	_	477,715	11.36	1/30/2032				
	10/27/2022 (4)	—	55,000	5.27	10/26/2032				
Ling Zeng	3/31/2022 (6)	—	270,000	6.24	3/30/2032				
	10/27/2022 (4)	—	55,000	5.27	10/26/2032				

- (1) The option vests over four years, with 25% of the shares vested on April 1, 2020, and the remainder vesting in equal quarterly installments thereafter, subject to continued employment through each applicable vesting date. The option, to the extent outstanding and unvested, will vest in full upon the occurrence of a change in control.
- (2) The option vests over four years, with 25% of the shares vested on March 26, 2022, and the remainder vesting in equal quarterly installments thereafter, subject to continued employment through each applicable vesting date. The option, to the extent outstanding and unvested, will vest in full upon the occurrence of a change in control.
- (3) The option vests over four years, with 25% of the shares vesting on March 9, 2023, and the remainder vesting in equal quarterly installments thereafter, subject to continued employment through each applicable vesting date.
- (4) The option vests over four years, with 25% of the shares vesting on October 27, 2023, and the remainder vesting in equal quarterly installments thereafter, subject to continued employment through each applicable vesting date.
- (5) The option vests over four years, with 25% of the shares vesting on January 3, 2023, and the remainder vesting in equal quarterly installments thereafter, subject to continued employment through each applicable vesting date.
- (6) The option vests over four years, with 25% of the shares vested on March 28, 2023, and the remainder vesting in equal quarterly installments thereafter, subject to continued employment through each applicable vesting date.

Executive Employment Agreements

We entered into new employment agreements with Mahesh Karande in connection with our initial public offering which superseded his prior employment arrangements with us. We entered into an employment agreement with Dr. Moore and Ms. Ling in connection with the commencement of their employment. The employment agreements entitle our named executive officers to receive the annual base salaries and annual target bonus opportunities described above under the headings "—2022 Salaries" and "—2022 Annual Bonuses." Dr. Moore also received a one-time sign-on bonus of \$458,000 in connection with the commencement of his employment, which is subject to claw-back if we terminate his employment for "cause" or he resigns without "good reason" prior to the eighteen-month anniversary of May 31, 2022, the date the second installment of the sign-on bonus was paid.



Under the employment agreements, if we terminate Mr. Karande, Dr. Moore or Ms. Zeng without "cause" or such named executive officer resigns for "good reason", subject to the named executive officer's timely executing a release of claims and continued compliance with certain restrictive covenants, the named executive officer is entitled to receive (i) an amount equal to 0.75 times (or 1.0 times for Mr. Karande) the named executive officer's annual base salary, payable in the form of salary continuation in regular installments over 9 months (or 12 months for Mr. Karande); (ii) payment of any earned but unpaid annual bonus for the year prior to the year of termination; (iii) payment for continued health coverage pursuant to COBRA, less the amount the named executive officer would have paid for coverage as an active employee, for up to 9 months (or 12 months for Mr. Karande) following termination; and (iv) in the case of Mr. Karande only, partial accelerated vesting of any unvested equity or equity-based awards granted prior to the date of our initial public offering, equal to one additional year or, for performance-based awards, 25% of the shares subject to such award. If we terminate Mr. Karande, Dr. Moore or Ms. Zeng without "cause" or the named executive officer resigns for "good reason", in either case, on or within 12 months following a change in control, then, in lieu of the severance payments and benefits described above, subject to the named executive officer's timely executing a release of claims and continued compliance with certain restrictive covenants, the named executive officer is entitled to receive (i) severance equal to one times (or 1.5 times for Mr. Karande) the named executive officer's annual base salary payable in equal installments over the 12-month period following termination (or 18month period for Mr. Karande); (ii) payment of any earned but unpaid annual bonus for the year prior to the year of termination; (iii) payment for continued health coverage pursuant to COBRA, less the amount the named executive officer would have paid for coverage as an active employee, for up to 12 months following termination (or 18 months for Mr. Karande); (iv) a lump sum payment equal to one times (or 1.5 times for Mr. Karande) the named executive officer's annual target bonus; and (v) full accelerated vesting of all unvested equity or equity-based awards (or, in the case of Mr. Karande, equity or equitybased awards granted on or following the date of our initial public offering) held by the executive that vest solely based on continued employment or service. In addition, upon the occurrence of a change in control, any unvested equity or equity-based awards held by Mr. Karande that were granted prior to the date of our initial public offering will vest in full. Our employment agreement with Dr. Sawhney that was in effect prior to his termination of employment provided for the same severance benefits contained in Dr. Moore and Ms. Zeng's employment agreements, described above.

For purposes of the employment agreements, "cause" generally means: (i) refusal to carry out the reasonable and lawful instructions of the Chief Executive Officer (or, in the case of Mr. Karande, the board of directors) concerning duties or actions consistent with the named executive officer's position with the company, as determined in the Chief Executive Officer's (or, in the case of Mr. Karande, the board of director's) reasonable and good faith determination, (ii) the named executive officer's breach of a material provision of the employment agreement that, to the extent capable of cure, has remained uncured for a period of 30 days following written notice from the company, (iii) the named executive officer's conviction, plea of no contest, plea of nolo contendere, or imposition of adjudicated probation for any felony or crime involving moral turpitude, (iv) unlawful use or possession of illegal drugs on the company's (or any of our affiliate's) premises or while performing the executive's duties and responsibilities under the employment agreement, or (v) commission of any act of fraud, embezzlement, misappropriation, willful misconduct, or breach of fiduciary duty against the company or any of our affiliates.

For purposes of the employment agreements, "good reason" generally means, subject to an opportunity for notice and cure, (i) a reduction in the named executive officer's annual base salary or target bonus, (ii) a material decrease in the named executive officer's duties, authority or areas of responsibility as are commensurate with the named executive officer's title or position with the company, (iii) the relocation of the named executive officer's primary office to a location more than twenty-five (25) miles from the named executive officer's primary office as of the date of the employment agreement, or (iv) the company's breach of a material provision of the employment agreement.

Each of our named executive officers has agreed to refrain from competing with us while employed and for a period of 12 months following the named executive officer's termination of employment if terminated for cause or if the named executive officer resigns for any reason and as a condition to the receipt of severance benefits upon a termination without cause or resignation for good reason. Each of our named executive officers has also agreed to refrain from soliciting our employees, consultants, customers, suppliers or vendors, in each case, while employed and for a period of 12 months following the named executive officer's termination of employment for any reason.

Separation Agreements with Named Executive Officers

In connection with his termination of employment on July 29, 2022, we entered into a separation agreement and release with Dr. Sawhney, pursuant to which he is entitled to receive severance payments and benefits in accordance with his employment agreement.

2022 Director Compensation

The table below shows all compensation to our non-employee directors during the year ended December 31, 2022. Mahesh Karande, our President and Chief Executive Officer, is also a member of our board of directors, but he does not receive any additional



compensation for his service as a director. Information regarding Mr. Karande's 2022 compensation is included in the "2022 Summary Compensation Table", "Outstanding Equity Awards at 2022 Fiscal Year-End" table and associated narrative disclosure above.

	Fees Earned or Paid in		Option Awards	All Other Compensation		
Name		Cash (\$)	(\$) ⁽¹⁾	(\$)		Total (\$)
Noubar B. Afeyan, Ph.D.	\$	67,880	\$ 39,678	—	\$	107,558
David A. Berry, M.D., Ph.D. ⁽³⁾	\$	20,331	\$ 	—	\$	20,331
Luke M. Beshar	\$	50,000	\$ 39,678	—	\$	89,678
Rainer J. Boehm, M.D. ⁽⁴⁾	\$	15,876	\$ 116,747	—	\$	132,623
Elliott M. Levy, M.D.	\$	45,558	\$ 39,678	—	\$	85,236
John Mendlein, Ph.D., J.D.	\$	52,583	\$ 39,678	—	\$	92,261
Mary T. Szela	\$	52,500	\$ 39,678	—	\$	92,178
Richard A. Young, Ph.D.	\$	43,583	\$ 39,678	\$120,000 (2)	\$	203,261

- (1) Amounts represent the aggregate grant date fair value of the stock options granted in 2022, calculated in accordance with ASC Topic 718, rather than the amounts paid to or realized by the non-employee director. We provide information regarding the assumptions used to calculate the value of option awards in Note 13 to the consolidated financial statements included in our Annual Report on Form 10-K filed on March 1, 2023.
- (2) Amount consists of consulting fees paid to Dr. Young for his advisory services in 2022, pursuant to his consulting agreement with us.
- (3) Dr. Berry ceased serving as a director on June 8, 2022.
- (4) Dr. Boehm became a director on August 31, 2022.

The table below shows the aggregate number of option awards (exercisable and unexercisable) held as of December 31, 2022 by each non-employee director. Our non-employee directors did not hold any unvested restricted stock or restricted stock units as of December 31, 2022.

	Option Awards Outstanding at 2022 Fiscal Year
Name	End(#)
Noubar B. Afeyan, Ph.D.	37,970
David A. Berry, M.D., Ph.D.	—
Luke M. Beshar	71,059
Rainer J. Boehm, M.D.	36,713
Elliott M. Levy, M.D.	71,059
John Mendlein, Ph.D., J.D.	239,478
Mary T. Szela	101,944
Richard A. Young, Ph.D.	18,118

Non-Employee Director Compensation Program

We maintain a non-employee director compensation program pursuant to which each of our non-employee directors received the following amounts for their services on our board of directors in 2022:

Cash Compensation

- An annual director fee of \$35,000;
- If the director serves as lead independent director or chair or on a committee of our board, an additional annual fee as follows:

- Chair of the board or lead independent director, \$30,000;
- Chair of the audit committee, \$15,000;
- Audit committee member other than the chair, \$7,500.
- Chair of the compensation committee, \$10,000;
- Compensation committee member other than the chair, \$5,000.
- Chair of the nominating and corporate governance committee, \$8,000;
- Nominating and corporate governance committee member other than the chair, \$4,000.

In addition, commencing with the formation of our research and development and science committee in January 2022, if the director serves as the chair or on our research and development and science committee, an additional annual fee as follows:

- Chair of the research and development and science committee, \$10,000;
- Research and development and science committee member other than the chair, \$5,000.

Director fees are payable quarterly in arrears and prorated for any partial quarter of service.

Equity Compensation

- *Initial Awards*: Each non-employee director who is initially elected or appointed to serve on our board of directors after the effective date of the non-employee director compensation program automatically will be granted, on the date on which such non-employee director is appointed or elected to serve on the board, an option to purchase 36,713 shares of our common stock with an exercise price per share of common stock equal to the fair market value of a share of our common stock on the date of grant. These initial options will vest in 36 equal monthly installments following the date of grant, such that the initial options will be fully vested and exercisable on the third anniversary of the date of grant, subject to the non-employee director's continued service as a non-employee director through the applicable vesting date.
- Subsequent Awards: Each non-employee director who (i) has been serving on our board for at least six months as of the date of any annual meeting of our stockholders after the effective date of our initial public offering and (ii) will continue to serve as a director immediately following such meeting automatically will be granted, on such annual meeting date, an option to purchase 18,118 shares of our common stock with an exercise price per share of common stock equal to the fair market value of a share of our common stock on the date of grant. Each annual option will vest in full on the earlier to occur of (i) the first anniversary of the applicable grant date and (ii) the date of the next annual meeting following the grant date, subject to such non-employee director's continued service as a non-employee director through the applicable vesting date.

In addition, each initial option and annual option will vest in full upon a change in control of the company (as defined in the 2021 Plan). If a non-employee director's service as a non-employee director on our board terminates for any reason, unless the board determines otherwise, such director's awards that are outstanding and unexercisable at the time of such termination will be forfeited and will not become thereafter vested or thereafter exercisable.



SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to holdings of our common stock by (i) stockholders who beneficially owned more than 5% of the outstanding shares of our common stock, and (ii) each of our directors (which includes all nominees), each of our named executive officers and all directors and executive officers as a group as of April 11, 2023, unless otherwise indicated. The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC. Under these rules, beneficial ownership includes any shares as to which a person has sole or shared voting power or investment power. Applicable percentage ownership is based on 55,023,089 shares of common stock outstanding as of April 11, 2023. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options, or other rights held by such person that are currently exercisable or will become exercisable within 60 days of April 11, 2023 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person.

Unless otherwise indicated, the address of each beneficial owner listed below is 20 Acorn Park Drive, Cambridge, Massachusetts 02140. We believe, based on information provided to us, that each of the stockholders listed below has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
5% or Greater Stockholders		
Entities affiliated with Flagship Pioneering ⁽¹⁾	29,225,579	53.1%
Entities affiliated with Fidelity ⁽²⁾	5,557,578	10.1%
Named Executive Officers and Directors		
Mahesh Karande ⁽³⁾	1,903,209	3.4%
Yan Moore ⁽⁴⁾	149,285	*
Ling Zeng ⁽⁵⁾	67,500	*
Roger Sawhney, M.D	193,261	*
Noubar B. Afeyan, Ph.D. ⁽¹⁾⁽⁶⁾	29,263,549	53.1%
Luke M. Beshar ⁽⁷⁾	44,588	*
Rainer J. Boehm, M.D ⁽⁸⁾ .	9,178	*
Elliott M. Levy, M.D. ⁽⁹⁾	44,588	*
John Mendlein, Ph.D., J.D. ⁽¹⁰⁾	197,973	*
Mary T. Szela ⁽¹¹⁾	96,704	*
Richard A. Young, Ph.D. ⁽¹²⁾	772,236	1.4%
All executive officers and directors as a group $(13 \text{ persons})^{(13)}$	33,064,208	57.0%

* Less than one percent.

Based on a Schedule 13D/A filed with the SEC on February 27, 2023 and other information known to the Company. Includes (a) 2,197,059 (1)shares held by Flagship VentureLabs V, LLC ("VentureLabs V"), (b) 5,896,386 shares held by Flagship Ventures Fund V, L.P. ("Flagship Fund V"), (c) 1,088,470 shares held by Flagship V VentureLabs Rx Fund, L.P. ("Flagship Fund V Rx"), (d) 8,617,413 shares held by Flagship Pioneering Fund VI, L.P. ("Flagship Fund VI"), (e) 7,508,693 shares held by Flagship Pioneering Special Opportunities Fund II, L.P. ("Flagship Opportunities Fund II"), (f) 970,588 shares held by Nutritional Health LTP Fund, L.P. ("Nutritional LTP"), (g) 1,617,646 shares held by FPN, L.P. ("FPN Fund") and (h) 1,329,324 shares held by Flagship Pioneering Fund VII, L.P. ("Flagship Fund VII" and together with FPN Fund, VentureLabs V, Flagship Fund V, Flagship Fund V Rx, Flagship Fund VI, Flagship Opportunities Fund II and Nutritional LTP, the "Flagship Funds"). Flagship Fund V is a member of VentureLabs V. VentureLabs V Manager LLC ("VentureLabs V Manager") is the manager of VentureLabs V. Flagship Pioneering, Inc. ("Flagship Pioneering") is the manager of VentureLabs V Manager. The General Partner of Flagship Fund V and Flagship Fund V Rx is Flagship Ventures Fund V General Partner LLC ("Flagship V GP"). The General Partner of Flagship Pioneering VI is Flagship Pioneering Fund VI General Partner LLC ("Flagship Pioneering VI GP"). The General Partner of Flagship Opportunities Fund II is Flagship Pioneering Special Opportunities Fund II General Partner LLC ("Flagship Opportunities Fund II GP"). The general partner of FPN Fund is FPN General Partner LLC ("FPN GP"). The general partner of Flagship Fund VII is Flagship Pioneering Fund VII General Partner LLC ("Flagship Fund VII GP"). The manager of Flagship Pioneering VI GP, Flagship Opportunities Fund II GP, FPN GP and Flagship Fund VII GP is Flagship Pioneering. The general partner of

Nutritional LTP is Nutritional Health LTP Fund General Partner LLC ("Nutritional LTP GP" and, together with VentureLabs V Manager, Flagship Pioneering, Flagship V GP, Flagship Pioneering VI GP, Flagship Opportunities Fund II GP, FPN GP and Flagship Fund VII GP, the "Flagship General Partners"). Noubar B. Afeyan, Ph.D. ("Dr. Afeyan") is the sole director of Flagship Pioneering and may be deemed to have beneficial ownership of all the shares held by VentureLabs V, Flagship Fund VI, Flagship Opportunities Fund II, FPN Fund and Flagship Fund VII GP. In addition, Dr. Afeyan serves as the sole manager of Flagship V GP and is the sole member and manager of Nutritional LTP GP and may be deemed to have beneficial ownership of all the shares held by Flagship Fund V, Flagship Fund V Rx and Nutritional LTP. None of the Flagship General Partners nor Dr. Afeyan directly own any of the shares held by the Flagship Funds, and each of the Flagship General Partners and Dr. Afeyan disclaims beneficial ownership of such shares except to the extent of its or his pecuniary interest therein. The mailing address of the Flagship Funds is 55 Cambridge Parkway, Suite 800E, Cambridge, MA 02142.

- (2) Based solely on a Schedule 13G/A filed with the SEC on March 10, 2023. Consists of shares held by accounts managed by Fidelity Management & Research Company LLC ("FMR Co") and Fidelity Management Trust Company. FMR LLC is the parent holding company of FMR Co and Fidelity Management Trust Company. Abigail P. Johnson is a Director, the Chairman, the Chief Executive Officer and the President of FMR LLC. Members of the Johnson family, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. FMR LLC has sole voting power over 5,557,503 shares, and FMR LLC and Abigail P. Johnson have sole dispositive power over 5,557,578 shares. The mailing address of FMR LLC is 245 Summer St., Boston, MA 02210.
- (3) Includes 1,785,498 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (4) Includes 149,285 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (5) Includes 67,500 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (6) Includes 37,970 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (7) Includes 44,588 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (8) Includes 9,178 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (9) Includes 44,588 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (10) Includes 197,973 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (11) Includes 96,704 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (12) Includes 18,118 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.
- (13) Includes 2,945,624 options to purchase Common Stock that are vested or will vest and become exercisable by June 10, 2023.

29

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

Policies and Procedures for Related Person Transactions

Our Board of Directors has adopted a written Related Person Transaction Policy, setting forth the policies and procedures for the review and approval or ratification of related person transactions. Under the policy, our finance department is primarily responsible for developing and implementing processes and procedures to obtain information regarding related persons with respect to potential related person transactions and then determining, based on the facts and circumstances, whether such potential related person transactions do, in fact, constitute related person transactions requiring compliance with the policy. If our finance department determines that a transaction or relationship is a related person transaction requiring compliance with the policy, our Chief Financial Officer is required to present to the Audit Committee all relevant known facts and circumstances relating to the related person transaction. Our Audit Committee must review the relevant known facts and circumstances of each related person transaction, including if the transaction is on terms comparable to those that could be obtained in arm's length dealings with an unrelated third party, whether the transaction arose in the ordinary course of business, and the extent of the related person's interest in the transaction, taking into account the conflicts of interest and corporate opportunity provisions of our Code of Business Conduct and Ethics, and either approve or disapprove the related person transaction. If advance Audit Committee approval of a related person transaction requiring the Audit Committee's approval is not feasible, then the transaction may be preliminarily entered into by management upon prior approval of the transaction by the Chair of the Audit Committee subject to ratification of the transaction by the Audit Committee at the Audit Committee's next regularly scheduled meeting; provided, that if ratification is not forthcoming, management will make all reasonable efforts to cancel or annul the transaction. If a transaction was not initially recognized as a related person, then upon such recognition the transaction will be presented to the Audit Committee for ratification at the Audit Committee's next regularly scheduled meeting; provided, that if ratification is not forthcoming, management will make all reasonable efforts to cancel or annul the transaction. Our management will update the Audit Committee as to any material changes to any approved or ratified related person transaction and will provide a status report at least annually of all then current related person transactions. No director may participate in the approval of a related person transaction for which he or she is a related person.

The following are certain transactions, arrangements and relationships with our directors, executive officers and stockholders owning 5% or more of our outstanding common stock, or any member of the immediate family of any of the foregoing persons, since January 1, 2021, other than equity and other compensation, termination, change in control and other arrangements, which are described under "Executive Compensation."

Series C Preferred Stock Financing

In March 2021, we issued and sold to investors in private placements an aggregate of 41,833,328 shares of our Series C preferred stock at a purchase price of \$3.00 per share, for aggregate consideration of approximately \$125.5 million.

The following table sets forth the aggregate number of shares of our capital stock acquired by beneficial owners of more than 5% of our capital stock in the financing transactions described above. Each share of our Series C preferred stock identified in the following table converted into 0.264706 shares of common stock in connection with our initial public offering.

Participants	Series C <u>Preferred Stock</u>
5% or Greater Stockholders(1)	
Entities affiliated with Flagship Pioneering	8,333,333
HarbourVest Partners L.P.	3,333,333
Entities affiliated with Fidelity	8,333,333

(1) Additional details regarding these stockholders and their equity holdings are provided in this proxy statement under the caption "Security Ownership of Certain Beneficial Owners and Management."

Some of our current directors are associated with our principal stockholders as indicated in the table below:

Director	Principal Stockholder
Noubar B. Afeyan, Ph.D.	Entities affiliated with Flagship Pioneering
John Mendlein, Ph.D., J.D.	Entities affiliated with Flagship Pioneering

Investor Rights Agreement We entered into a Second Amended and Restated Investors' Rights Agreement in March 2021 with the holders of our preferred stock, including entities with which certain of our directors are related. The agreement provides, among other



things, for certain rights relating to the registration of such holders' common stock, including shares issuable upon conversion of preferred stock in connection with our initial public offering. The registration rights terminate upon the earlier of (i) five years after the effective date of the registration statement relating to our initial public offering, or July 29, 2026, (ii) immediately before the closing of a deemed liquidation event, as defined in our Restated Certificate of Incorporation and (iii) at such time after consummation of our initial public offering as Rule 144 or another similar exemption under the Securities Act of 1933, as amended, is available for the sale of all of a holders' shares without limitation during a three-month period without registration, or if a holder is an affiliate of the Company immediately after the consummation of our initial public offering, at such time as such holder is no longer an affiliate of the Company. Certain provisions, including those with respect to information rights, terminated in connection with our initial public offering.

Voting Agreement

We entered into a Second Amended and Restated Voting Agreement in March 2021, pursuant to which the following directors were elected to serve as members on our Board of Directors and, as of the date of this proxy statement, continue to so serve: Noubar B. Afeyan, Ph.D., John Mendlein, Ph.D., J.D., Richard A. Young, Ph.D., Mary T. Szela and Mahesh Karande. Mahesh Karande was selected to serve on our Board of Directors in his capacity as our chief executive officer. Dr. Afeyan was initially selected to serve on our Board of Directors as a representative of holders of our preferred stock, as designated by entities affiliated with Flagship Pioneering. Ms. Szela and Drs. Mendlein and Young were selected to serve on our Board of Directors as independent directors, as designated by the holders of a majority of the voting power of the outstanding shares of preferred stock.

The voting agreement terminated upon the closing of our initial public offering, and members previously elected to our Board of Directors pursuant to this agreement will continue to serve as directors until they resign, are removed or their successors are duly elected by the holders of our common stock.

Flagship Management Service Agreement

In July 2016, we entered into a ten-year management service agreement with Flagship Pioneering, or Flagship, to provide management services, including accounting, human resources, information technology, legal, and consultation. We also agreed to reimburse Flagship for certain expenses, including insurance and benefits, general consulting, and software licenses incurred on our behalf. For each of the years ended December 31, 2022 and 2021, we paid Flagship \$1.4 million and \$0.9 million, respectively, in management services fees and other reimbursements.

Flagship License Agreement

In March 2019, we entered into a license agreement with Flagship Pioneering Innovations V, Inc., or Flagship, an affiliate of certain beneficial owners of more than 5% of our capital stock, pursuant to which we received an exclusive, worldwide, royalty-bearing, transferable, sublicensable license under certain patent rights owned or controlled by Flagship. There were no payments made under the agreement during the years ended December 31, 2022 and 2021.

Whitehead License Agreements

In May 2019, we entered into an exclusive license agreement with the Whitehead Institute for Biomedical Research, or WIBR, pursuant to which we received an exclusive, worldwide, royalty-bearing, sublicensable license under certain patent rights owned or controlled by WIBR. We made payments under the agreement of less than \$0.1 million in each of the years ended December 31, 2022 and 2021. The patents in-licensed by us from WIBR pursuant to the agreement claim inventions created by, among others, Dr. Young, one of our directors. Pursuant to WIBR's policy on the ownership, distribution and commercial development of WIBR's technology, or the WIBR Policy, inventors of intellectual property invented at WIBR, including the inventors of patents licensed to us under the agreement, are entitled to a portion of the net royalty income derived from such inventions. Accordingly, pursuant to the WIBR Policy, Dr. Young is entitled to receive a portion of the amounts we pay to WIBR under the agreement. Accordingly, Dr. Young received approximately \$3,000 from WIBR under the WIBR Policy during each of the years ended December 31, 2022 and 2021, due to payments we made under the agreement.

In May 2019, we entered into a co-exclusive license agreement with WIBR pursuant to which we received a co-exclusive, worldwide, royalty-bearing, sublicensable license under certain patent rights owned or controlled by WIBR. We made payments under the agreement of less than \$0.2 million during each of the years ended December 31, 2022 and 2021. The patents in-licensed by us from WIBR pursuant to the agreement claim inventions created by, among others, Dr. Young, one of our directors. Pursuant to the WIBR Policy, inventors of intellectual property invented at WIBR, including the inventors of patents licensed to us under the agreement, are entitled to a portion of the net royalty income derived from such inventions. Accordingly, pursuant to the WIBR Policy, Dr. Young is entitled to receive a portion of the amounts we pay to WIBR under the agreement. Accordingly, Dr. Young received approximately

\$1,000 from WIBR under the WIBR Policy during each of the years ended December 31, 2022 and 2021, due to payments we made under the agreement.

Pledge and Utilization Agreement with Flagship Pioneering Labs TPC, Inc.

In July 2022, we entered into a Pledge and Utilization Agreement with Flagship Pioneering Labs TPC, Inc., or TPC, an affiliate of certain beneficial owners of more than 5% of our capital stock, for an option to lease certain manufacturing space in Andover, Massachusetts. We paid TPC \$0.8 million for this option during the year ended December 31, 2022.

Sublease Agreement with LARONDE, Inc. (formerly known as VL50, Inc.)

In August 2020, we entered into a sublease agreement with LARONDE, Inc., a company affiliated with Flagship, a beneficial owner of more than 5% of our capital stock, for a portion of laboratory and office space in Cambridge, Massachusetts. The term of the sublease agreement commenced on August 27, 2020 and terminates on September 30, 2024. Under the sublease agreement, we received rental income of \$2.3 million and \$2.0 million during the years ended December 31, 2022 and 2021, respectively.

Sublease Agreement with Cygnal Therapeutics, Inc.

In September 2019, we entered into a sublease agreement with Cygnal Therapeutics, Inc., a company affiliated with Flagship, a beneficial owner of more than 5% of our capital stock, for a portion of laboratory and office space in Cambridge, Massachusetts. The sublease term was to continue on a month-to-month basis until advanced notice is provided to us. Cygnal gave notice to us, terminated the agreement and vacated the property in May 2022. Under the sublease agreement, we received rental income of less than \$0.1 million for each of the years ended December 31, 2022 and 2021, respectively.

Shared Space Arrangement with Senda Biosciences, Inc. (formerly known as Kintai Therapeutics, Inc.)

In July 2020, we entered into a shared space arrangement with Senda Biosciences, Inc. ("Senda," formerly known as Kintai Therapeutics, Inc.), a company affiliated with Flagship, a beneficial owner of more than 5% of our capital stock, for a portion of laboratory and office space in Cambridge, Massachusetts. The term of the shared space arrangement commenced on August 1, 2020 and terminates on July 31, 2022.

In January 2022, we entered into an amendment to the shared space arrangement with Senda to exercise the option to renew the lease term for another 12 months. The lease term will now expire in July 2023. We also modified certain provisions related to the extension term. In connection with the modifications in the amendment, we paid an upfront payment of \$2.9 million, which will cover the rent payment for the extended lease term. Additionally, upon the expiration of the lease term, we will receive \$0.7 million from Senda for all furniture, fixtures and equipment owned by us that will remain at the lease property. Under the shared space arrangement, we paid Senda \$3.1 and \$2.6 million for rent and operating expenses during the years ended December 31, 2022 and 2021, respectively.

Collaboration Agreement with PM (CF) Explorations, Inc.

In November 2021, we entered into a five-year collaboration agreement with PM (CF) Explorations, Inc. ("PMCo"), an affiliate of Flagship, under which PMCo was granted an exclusive license covering specified patent rights of our lipid nanoparticle technology to develop one or more therapeutic products to treat diseases related to the cystic fibrosis transmembrane conductance regulator gene, like cystic fibrosis. Under the terms of the agreement, we will perform certain research activities in accordance with the research plan, and PMCo will be solely responsible for, at its sole cost and expense, and will have sole discretion with respect to, developing, manufacturing, seeking regulatory approval for and commercializing licensed products. We expect to receive approximately \$5.4 million in cost reimbursement over the course of the next two to three years to fund the related research and development activities. The research plan funding may be adjusted upon mutual written agreement from both parties. Additionally, in the event PMCo is acquired or sold, we are entitled to receive a portion of the proceeds of such transaction, subject to various reductions and other amounts payable in accordance with the agreement. Under the collaboration agreement, we received collaboration revenue of \$2.1 million during the year ended December 31, 2022.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us or will require us to indemnify each director (and in certain cases their related venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer.



STOCKHOLDERS' PROPOSALS

Stockholders who intend to have a proposal considered for inclusion in our proxy materials for presentation at our 2024 Annual Meeting of Stockholders pursuant to Rule 14a-8 under the Exchange Act must submit the proposal to our Secretary at our offices at 20 Acorn Park Drive, Cambridge, Massachusetts 02140 in writing not later than December 27, 2023.

Stockholders intending to present a proposal at the 2024 Annual Meeting of Stockholders, 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 Amended and Restated Bylaws. Our Amended and Restated Bylaws require, among other things, that our Secretary receive written notice from the stockholder of record of their intent to present such proposal or nomination not earlier than the 120th day and not later than the 90th day prior to the anniversary of the preceding year's annual meeting. Therefore, we must receive notice of such a proposal or nomination for the 2024 Annual Meeting of Stockholders no earlier than February 8, 2024, and no later than March 9, 2024. The notice must contain the information required by the Amended and Restated Bylaws, a copy of which is available upon request to our Secretary. In the event that the date of the 2024 Annual Meeting of Stockholders is more than 30 days before or more than 60 days after June 7, 2024, then our Secretary must receive such written notice not earlier than the close of business on the 10th day prior to the 2024 Annual Meeting and not later than the close of business on the 10th day following the day on which public disclosure of the date of such meeting is first made by us.

In addition to satisfying the foregoing requirements under our Amended and Restated Bylaws, to comply with the universal proxy rules, stockholders who intend to solicit proxies in support of director nominees other than the Company's nominees must provide notice that sets forth the information required by Rule 14a-19(b) under the Exchange Act.

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.

OTHER MATTERS

Our Board of Directors is not aware of any matter to be presented for action at the Annual Meeting other than the matters referred to above and does not intend to bring any other matters before the Annual Meeting. However, if other matters should come before the Annual Meeting, it is intended that holders of the proxies named on the Company's proxy card will vote thereon in their discretion.

SOLICITATION OF PROXIES

The accompanying proxy is solicited by and on behalf of our Board of Directors, whose Notice of Annual Meeting is attached to this proxy statement, and the entire cost of our solicitation will be borne by us. In addition to the use of mail, proxies may be solicited by personal interview, telephone, e-mail and facsimile by our directors, officers and other employees who will not be specially compensated for these services. We will also request that brokers, nominees, custodians and other fiduciaries forward soliciting materials to the beneficial owners of shares held by the brokers, nominees, custodians and other fiduciaries. We will reimburse these persons for their reasonable expenses in connection with these activities.

Certain information contained in this proxy statement relating to the occupations and security holdings of our directors and officers is based upon information received from the individual directors and officers.

In connection with our solicitation of proxies for our 2024 Annual Meeting, we intend to file a proxy statement and WHITE proxy card with the SEC. Stockholders may obtain our proxy statement (and any amendments and supplements thereto) and other documents as and when filed with the SEC without charge from the SEC's website at: www.sec.gov.



OMEGA'S ANNUAL REPORT ON FORM 10-K

A copy of Omega's Annual Report on Form 10-K for the fiscal year ended December 31, 2022, including financial statements and schedules thereto but not including exhibits, as filed with the SEC, will be sent to any stockholder of record on April 11, 2023, without charge upon written request addressed to:

Omega Therapeutics, Inc. Attention: Secretary 20 Acorn Park Drive Cambridge, Massachusetts 02140

A reasonable fee will be charged for copies of exhibits. You also may access this proxy statement and our Annual Report on Form 10-K at *www.proxyvote.com*. You also may access our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, at *www.omegatherapeutics.com*.

WHETHER OR NOT YOU PLAN TO ATTEND THE ANNUAL MEETING ONLINE, WE URGE YOU TO VOTE YOUR SHARES VIA THE TOLL-FREE TELEPHONE NUMBER OR OVER THE INTERNET, AS DESCRIBED IN THIS PROXY STATEMENT. IF YOU RECEIVED A COPY OF THE PROXY CARD BY MAIL, YOU MAY SIGN, DATE AND MAIL THE PROXY CARD IN THE ENCLOSED RETURN ENVELOPE. PROMPTLY VOTING YOUR SHARES WILL ENSURE THE PRESENCE OF A QUORUM AT THE ANNUAL MEETING AND WILL SAVE US THE EXPENSE OF FURTHER SOLICITATION.

By Order of the Board of Directors

Ling Zeng, Chief Legal and Administrative Officer and Secretary

Cambridge, Massachusetts April 25, 2023



OMEGA THENAPEUTICS, M.C. 28 ACORN RANK DRIVE CAMBRIDGE, MA 92149



VOTE BY INTERNET Before The Meeting - Go to <u>www.proxyvote.com</u> or scan the QR Barcode above

Use the internet to transmit your voting instructions and for electronic delivery of information. Vote by 11:59 p.m. Eastern Time on June 6, 2023. 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/OMGA2023

You may attand the meeting we 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 6, 2023. 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, Joe Broadridge, S1 Mercedes Way, Edgewood, NY 11717.

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

		19200322			V11870-P90814 KE	EP THIS PORTIO	N FOR YO	UR RECOR
	THIS	PROXY CA	RD IS VA	LID ON	LY WHEN SIGNED AND DATED.	ACH AND RETUR	IN THIS PO	ORTION OF
The	A THERAPEUTICS, INC. Board of Directors recommends you vote F following:	A 11	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.			-1
1.	Election of Class II Directors to serve until the 2/ Annual Meeting of Stockholders, and until their respect successors shall have been duly elected and qualified	the	0	0				
	Nominees:							
	01) John Mendlein, Ph.D., J.D. 02) Mary T. Szela 03) Richard A. Young, Ph.D.							
The	Board of Directors recommends you vote FOR th	e following	proposal:			For	Against	Abstair
2.	Ratification of the appointment of Deloitte & Touch December 31, 2023.	e LLP as the	Company'	's Indepen	dent registered public accounting firm for the fiscal year	ending	0	0
Plea	se sign exactly as your name(s) appear(s) hereon. Wh inistrator, or other fiduciary, please give full title as su	en signing a	is attorney	, executor,				
pers	onally. All holders must sign. If a corporation or partne artnership name by authorized officer.	rship, please	sign in fuil	corporate	5 			
Ĩ								

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

V11871-P90814

OMEGA THERAPEUTICS, INC. Annual Meeting of Stockholders June 7, 2023 9:00 AM EDT This proxy is solicited by the Board of Directors

The undersigned hereby appoints Mahesh Karande, President and Chief Executive Officer, and Joshua Reed, Chief Financial Officer (each, a "Proxy" and together, the "Proxies"), and each of them, with full power of substitution, as Proxies to vote all the shares of common stock that the undersigned would be entitled to vote if present at the Annual Meeting of Stockholders of Omega Therapeutics, Inc. to be held at <u>www.virtualshareholdermeeting.com/OMGA2023</u> on June 7, 2023 at 9:00 A.M. EDT and at any continuation, postponement or adjournment thereof, as designated on the reverse side of this card. In their discretion, the Proxies are authorized to vote (x) for the election of any person to the Board of Directors if any nominee named herein becomes unable to serve or for good cause will not serve, (y) on any matter that the Board of Directors did not know would be presented at the Annual Meeting by a reasonable time before the proxy solicitation was made and (z) on such other business as may properly come before the Annual Meeting or at any adjournments, continuations, or postponements thereof.

This proxy, when properly executed, will be voted in the manner directed herein by the undersigned stockholder. If no such direction is made, this proxy will be voted FOR ALL NOMINEES in Proposal 1 and FOR Proposal 2.

Continued and to be signed on reverse side