

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

SCHEDULE 14A INFORMATION

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6 (e) (2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to Section 240.14a-11 (c) or Section 240.14a-12

NEUBASE 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):

- 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
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NEUBASE THERAPEUTICS, INC.
350 Technology Drive
Pittsburgh, PA 15219
NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held on September 8, 2022

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of NeuBase Therapeutics, Inc., a Delaware corporation (the "Company"). The Annual Meeting will be held on Thursday, September 8, 2022, at 8:30 a.m., Eastern Time, exclusively online via live audio-only webcast, for the following purposes:

- (1) To elect two Class II directors, nominated by our Board of Directors, to serve until our 2025 Annual Meeting of Stockholders and until their successors are duly elected and qualified;
- (2) To ratify the selection of Marcum LLP ("Marcum") as our independent registered public accounting firm for the fiscal year ending September 30, 2022;
- (3) To conduct an advisory (non-binding) vote on executive compensation;
- (4) Amendments to the Company's Amended and Restated Certificate of Incorporation to permit our Board of Directors to approve a reverse stock split in a range of one-for-five to a maximum of a one-for-twenty; and
- (5) To transact such other business as may properly come before the Annual Meeting or any adjournment(s) thereof.

The record date for the Annual Meeting is July 15, 2022. Only stockholders of record at the close of business on that date may vote at the Annual Meeting or any adjournment(s) or postponement(s) thereof. On or about July 22, 2022, we expect to mail our stockholders a Notice of Internet Availability of Proxy Materials (the "Notice") containing instructions on how to access our proxy statement and our annual report. The Notice provides instructions on how to vote via the internet or by telephone and includes instructions on how to receive a paper copy of our proxy materials by mail. The accompanying proxy statement and our annual report can be accessed directly at www.proxydocs.com/NBSE.

Our Annual Meeting will be a virtual meeting of stockholders, which will be conducted solely by remote communication via a live webcast. There will not be a physical meeting location, and stockholders will not be able to attend the Annual Meeting in person. This means that you can attend the Annual Meeting online, vote your shares during the online meeting and submit questions for consideration at the online meeting. To be admitted to the Annual Meeting's live webcast, you must register at www.proxydocs.com/NBSE by 5:00 p.m. Eastern Time on September 7, 2022 (the "Registration Deadline"). As part of the registration process, you must enter the Control Number shown on the Notice that is sent to you, the proxy card if you request physical delivery of proxy materials or the voting instruction form you receive from your brokerage firm, bank or other financial institution if you are not a stockholder of record. After completion of your registration by the Registration Deadline, further instructions, including a unique link to access the Annual Meeting, will be e-mailed to you.

By Order of the Board of Directors,



Dietrich Stephan, Ph.D.
Chairman and Chief Executive Officer

July 22, 2022
Pittsburgh, Pennsylvania

THE BOARD OF DIRECTORS APPRECIATES AND ENCOURAGES YOUR PARTICIPATION IN THE ANNUAL MEETING. WHETHER OR NOT YOU EXPECT TO ATTEND THE ANNUAL MEETING, IT IS IMPORTANT THAT YOUR SHARES BE REPRESENTED. ACCORDINGLY, PLEASE VOTE YOUR PROXY VIA THE INTERNET AT WWW.PROXYPUSH.COM/NBSE OR OVER THE TELEPHONE AT 1-866-206-4393 OR REQUEST A PRINTED COPY OF THE PROXY MATERIALS AND USE THE ENCLOSED PROXY CARD. EVEN IF YOU HAVE VOTED BY PROXY, YOU MAY STILL VOTE AT THE VIRTUAL ANNUAL MEETING BY FOLLOWING THE REGISTRATION INSTRUCTIONS OUTLINED ABOVE IF YOU ATTEND THE MEETING VIRTUALLY.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:

The Notice, Proxy Statement and Form 10-K are available at www.proxydocs.com/NBSE This document constitutes our Annual Report to Stockholders, and is being made available to all stockholders entitled to receive notice of and to vote at the Annual Meeting. Except as otherwise stated, the Annual Report on Form 10-K is not incorporated into this Proxy Statement and should not be considered proxy solicitation material.

TABLE OF CONTENTS

PROXY STATEMENT	1
PROPOSAL NO. 1 ELECTION OF CLASS II DIRECTORS	3
PROPOSAL NO. 2 RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	8
PROPOSAL NO. 3 ADVISORY VOTE ON EXECUTIVE COMPENSATION	11
PROPOSAL NO. 4 AMENDMENTS TO THE COMPANY'S AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO PERMIT OUR BOARD OF DIRECTORS TO APPROVE A REVERSE STOCK SPLIT IN A RANGE OF ONE-FOR-FIVE TO A MAXIMUM OF A ONE-FOR-TWENTY	12
BOARD OF DIRECTORS AND COMMITTEES AND CORPORATE GOVERNANCE	21
EXECUTIVE OFFICERS	25
EXECUTIVE COMPENSATION	27
DIRECTOR COMPENSATION	34
REPORT OF THE AUDIT COMMITTEE	36
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS	37
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	40
SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE	42
STOCKHOLDER PROPOSALS	42
DELIVERY OF PROXY MATERIALS	42
WHERE YOU CAN FIND ADDITIONAL INFORMATION	43
OTHER MATTERS	43

neubase

NEUBASE THERAPEUTICS, INC.

350 Technology Drive
Pittsburgh, PA 15219

PROXY STATEMENT**General Information**

This Proxy Statement is furnished in connection with the solicitation of proxies by the Board of Directors (the “Board”) of NeuBase Therapeutics, Inc. (the “Company”) for use at the Company’s Annual Meeting of Stockholders (the “Annual Meeting”) to be held on Thursday, September 8, 2022, at 8:30 a.m., Eastern Time, exclusively online via live audio-only webcast and any adjournment(s) or postponement(s) thereof. This Proxy Statement, the form of proxy and our Annual Report on Form 10-K for the year ended September 30, 2021 (the “2021 Annual Report”) are being distributed or made available via the Internet on or about July 22, 2022 to the stockholders of record of the Company’s common stock, par value \$0.0001 per share (the “common stock”), as of July 15, 2022 (the “Record Date”).

Solicitation and Voting Procedures

Pursuant to Securities and Exchange Commission (“SEC”) rules regarding the electronic distribution of proxy materials, we have elected to provide access to our proxy materials on the Internet, instead of mailing the full set of printed proxy materials, which allows us to reduce costs associated with the Annual Meeting. On or about July 22, 2022, we intend to send to our stockholders a Notice of Internet Availability of Proxy Materials (the “Notice”) containing instructions on how to access our Proxy Statement and the 2021 Annual Report and how to submit a proxy. If you receive a Notice, you will not receive a printed copy of the proxy materials in the mail unless you request it. If you would like to receive a printed copy of our proxy materials, you should follow the instructions for requesting such materials included in the Notice.

The Company will bear all costs of the solicitation of proxies. These costs will include the expense of preparing and mailing proxy materials for the Annual Meeting and reimbursements paid to brokerage firms and others for their expenses incurred in forwarding solicitation material regarding the Annual Meeting to “Beneficial Holders” (defined below).

As of the Record Date, there were 32,258,657 shares of common stock issued and outstanding. Only holders of record of common stock at the close of business on the Record Date are entitled to notice of and to vote at the Annual Meeting. Each share of common stock outstanding on the Record Date is entitled to one vote on all matters.

Holders of record who hold shares of common stock directly on the Record Date must return a proxy by one of the methods described on the proxy card or attend the Annual Meeting virtually online in order to vote on the proposals. Investors who hold shares of common stock indirectly on the Record Date (“Beneficial Holders”) through a brokerage firm, bank or other financial institution (a “Financial Institution”) must return a voting instruction form to have their shares voted in accordance with their instructions. Financial Institutions have discretion to vote absent instructions with respect to certain routine matters, such as Proposal No. 2, the ratification of the independent registered public accounting firm, but not with respect to matters that are considered non-routine, such as Proposal Nos. 1, 3 and 4, the election of directors, the advisory vote on executive compensation and the reverse stock split amendments, respectively. A “broker non-vote” occurs when a Financial Institution has not received instructions from the beneficial owner and does not have discretionary authority to vote the shares for these non-routine matters.

The presence, by virtual attendance or by proxy, of a majority of the outstanding shares of common stock on the Record Date, will constitute a quorum for the transaction of business at the Annual Meeting and any adjournments thereof. Your shares will be counted towards the quorum only if you submit a valid proxy (or if one is submitted on your behalf by your broker, bank or other agent) or if you vote online at the

Annual Meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the chairman of the meeting or the stockholders holding a majority of the shares present at the Annual Meeting may adjourn the Annual Meeting to another date.

Under Delaware law (under which NeuBase is incorporated), abstentions are counted as shares present and entitled to vote at the Annual Meeting, but they are not counted as shares cast. Therefore, abstentions will have no effect on Proposal No. 1 — Election of Directors; Proposal No. 2 — Ratification of Auditors and Proposal No. 3 — Advisory Vote on Executive Compensation. For Proposal No. 4 — Amendments to Effect Reverse Stock Split, abstention votes will have the same effect as a vote “Against” the proposal.

Because broker non-votes are not considered under Delaware law to be entitled to vote at the Annual Meeting, they will have no effect on the outcome of the vote on: Proposal No. 1 — Election of Directors and Proposal No. 3 — Advisory Vote on Executive Compensation. As a result, if you hold your shares in street name and you do not instruct your broker, bank or other such holder how to vote your shares in the election of directors, the advisory vote related to the approval of our named executive officer compensation program or the advisory vote related to the frequency of the advisory vote related to the approval of our named executive officer compensation program, no votes will be cast on your behalf on these proposals. Proposal No. 2, the proposal to ratify the selection of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2022, should be considered a discretionary matter. Therefore, your broker, bank or other such holder will be able to vote on this proposal even if it does not receive instructions from you, so long as it holds your shares in its name. For Proposal No. 4 — Amendments to Effect Reverse Stock Split, broker non-votes will have same effect as a vote “Against” the proposal.

A description of the required vote for each proposal is included within each proposal below.

We urge any stockholder not planning to attend the Annual Meeting virtually to vote their proxy in advance, whether via the Internet (www.proxypush.com/NBSE) or by telephone (1-866-206-4393) or by mailing an executed proxy card to us. The deadline to vote by telephone is 11:59 P.M. Eastern Time on Wednesday, September 7, 2022. Unless you promptly register to attend the Annual Meeting virtually, the deadline to vote by Internet is 11:59 P.M. Eastern Time on Wednesday, September 7, 2022.

To be admitted to the Annual Meeting and vote your shares during the Annual Meeting, you must register to attend the Annual Meeting at www.proxydocs.com/NBSE by 5:00 p.m. Eastern Time on September 7, 2022 (the “Registration Deadline”), and provide the Control Number shown on your Notice that is sent to you, the proxy card if you request physical delivery of proxy materials or the voting instruction form you receive from your brokerage firm, bank or other financial institution if you are not a stockholder of record. After completion of your registration by the Registration Deadline, further instructions, including a unique link to access the Annual Meeting, will be e-mailed to you.

Beneficial Holders who wish to attend the Annual Meeting virtually and vote online during the Annual Meeting must contact their Financial Institution in order to obtain a “legal proxy.” If you are a Beneficial Holder and wish to attend the Annual Meeting, follow the instructions from your Financial Institution included with these proxy materials, or contact that organization to request a form of legal proxy. Without a legal proxy, Beneficial Holders cannot vote online during the Annual Meeting.

Any holder of record may revoke a proxy submitted in advance of the Annual Meeting by: (i) delivering a written revocation to the Company’s Secretary before the Annual Meeting, (ii) delivering an executed, later-dated proxy or (iii) virtually attending the Annual Meeting and voting online during the Annual Meeting. Beneficial Holders who wish to change or revoke their voting instructions should contact their Financial Institution for information on how to do so.

Holders of proxies solicited by this Proxy Statement will vote the proxies received by them as directed on the proxy card or, if no direction is made, then FOR the nominees listed in Proposal No. 1 and FOR each of Proposal No. 2, No. 3 and No. 4.

We believe that hosting a *virtual meeting* is in the best interest of the Company and its stockholders and enables increased stockholder attendance and participation because stockholders can participate from any location around the world. Stockholders will have the same rights and opportunities to participate as they would have at an in-person meeting.

PROPOSAL NO. 1
ELECTION OF CLASS II DIRECTORS

Overview

The Company’s Amended and Restated Certificate of Incorporation, as amended (the “Certificate of Incorporation”), provides that the Board is to be divided into three classes as nearly equal in number as possible, with directors in each class serving staggered three-year terms. The total Board size is currently fixed at six directors. The Class II directors (whose terms expire at the Annual Meeting) are Gerry J. McDougall and Dietrich Stephan, Ph.D. The Class III directors (whose terms expire at the 2023 annual meeting of stockholders (“2023 Annual Meeting”)) are Franklyn G. Prendergast, M.D., Ph.D. and Eric Ende, M.D. The Class I directors (whose terms expire at the 2024 annual meeting of stockholders) are Dov A. Goldstein, M.D. and Eric I. Richman. The Class II directors elected at the Annual Meeting will hold office until the 2025 annual meeting of stockholders, and until their successors are elected and qualified, unless they resign or their seats become vacant due to death, removal or other cause in accordance with the Company’s Amended and Restated Bylaws, as amended (the “Bylaws”).

As described below, the Board has nominated Gerry J. McDougall and Dietrich Stephan Ph.D. for re-election as Class II directors. The nominees have indicated their willingness to serve if elected. Should the nominees become unavailable for election at the Annual Meeting, the person named on the enclosed proxy as proxy holder may vote all proxies given in response to this solicitation for the election of substitute nominees chosen by our Board.

Nomination of Directors

The Nominating and Corporate Governance Committee, which acts as the nominating committee of the Board, reviews and recommends potential candidates for election to the Board. In reviewing potential candidates, the Nominating and Corporate Governance Committee considers the qualifications described below under the caption “Board of Directors and Committees and Corporate Governance — Director Nominations and Stockholder Communications.” After reviewing the qualifications of potential Board candidates, the Nominating and Corporate Governance Committee presents its recommendations to the Board, which selects the final director nominees. The Nominating and Corporate Governance Committee recommended the nominees for director identified in this Proxy Statement. We did not pay any fees to any third parties to identify or assist in identifying or evaluating nominees for consideration for election at the Annual Meeting.

Information Regarding Nominees and Incumbent Directors

The Nominating and Corporate Governance Committee has recommended, and the Board has nominated, Gerry J. McDougall and Dietrich Stephan, Ph.D. to be re-elected as Class II directors at the Annual Meeting. The following table contains information about the nominees and about each of the Company’s continuing directors: the year each was first elected a director, their respective ages as of July 1, 2022, the positions currently held with the Company, the year their current term will expire and their current class:

Name	Year Initially Elected	Age ⁽¹⁾	Position(s)	Expiration of Term	Class
Dov A. Goldstein, M.D. ⁽²⁾	2019	54	Director	2024	I
Gerry J. McDougall ⁽³⁾⁽⁴⁾	2021	55	Director	2022	II
Franklyn G. Prendergast, M.D., Ph.D. ⁽²⁾⁽⁴⁾	2019	77	Director	2023	III
Eric I. Richman ⁽²⁾⁽³⁾⁽⁴⁾	2019	61	Director	2024	I
Dietrich Stephan, Ph.D.	2019	52	Chairman, President and Chief Executive Officer	2022	II
Eric Ende, M.D. ⁽³⁾⁽⁴⁾	2022	54	Director	2023	III

-
- (1) Ages as of July 1, 2022.
 - (2) Member of the Audit Committee.
 - (3) Member of the Nominating and Corporate Governance Committee.
 - (4) Member of the Compensation Committee.

Board Diversity Matrix

Gender	Female	Male
Number of Directors based on gender identity	0	6
Number of Directors Who Self-Identify In any Category Below		
African American or Black	0	0
Hispanic or Latinx	0	0
White or Caucasian	0	5
Asian	0	0
LGBTQ+	0	0
Information not provided	0	1

Class II Directors Nominated for Election

The following persons have been nominated by our Board to be elected as Class II directors at the Annual Meeting:

Gerry J. McDougall, has served as a member of our Board since May 2021. Mr. McDougall is a retired Senior Partner in PricewaterhouseCoopers's Health Sciences Practice, where he provided services for over 25 years to academic medical centers, bioscience companies, pharmaceutical companies, research universities, colleges, health systems and other research organizations. In this role, he linked scientific breakthroughs to clinical applications for the benefit of patients and society in many parts of healthcare (especially cancer and precision medicine) and drew on deep, trusted, long-standing relationships with leading scientists, entrepreneurs, academics industry groups and philanthropists. Mr. McDougall's experience includes a broad range of research business and compliance services, including strategic and business planning, financial analysis, research compliance, clinical research operations improvement, and information systems implementation services. In addition, his experience includes support services to the entire research continuum, from grant-funded basic science research, to translational research and clinical trials, including a dedicated group focusing on Clinical Research Consulting services and Global oncology. Mr. McDougall has been involved in numerous volunteer and trade organizations throughout his career, including as a board member of the Infectious Disease Research Institute (IDRI), as a board member of the Multiple Myeloma Research Foundation (MMRF) and most recently as a board member of the American Society of Clinical Oncology (ASCO). Mr. McDougall received a Bachelor's degree in business from Northeastern University. We believe that Mr. McDougall's 25 years' of experience as a driving force behind large-scale strategic alliances, joint ventures, and industry partnerships across the healthcare industry to advance innovations in precision medicine and cancer qualify him to serve as a member of our Board.

Dietrich Stephan, Ph.D., has been our Chairman and Chief Executive Officer since July 2019 and he served as our President from July 2019 until June 2022. Dr. Stephan was also the founder and Chief Executive Officer of Legacy NeuBase. Before founding Legacy NeuBase, Dr. Stephan was founder and Chief Executive Officer of LifeX Holdings, a healthcare startup incubator, and a tenured full professor of Human Genetics at the University of Pittsburgh. He served as Chair of the Department of Human Genetics at the University of Pittsburgh from 2013 to 2018, and earlier, as the founding Director of the Neurogenomics Division at the Translational Genomics Research Institute (TGen) and Deputy Director of Discovery Research at TGen. Dr. Stephan is Chairman of Peptilogics, a privately held peptide therapeutics company; a director of Sharp Edge Labs, a privately held small-molecule genetic disease therapeutics company; a director of FarmaceuticalRx, a privately held pharmaceutical company developing cannabinoid-based therapies; and partner in Cyto Ventures, an early stage investment fund. In the last five years, Dr. Stephan has held

director roles at Pendulum Therapeutics (formerly Whole Biome), a privately held company developing microbiome therapies; CereDx, a privately held home-base stroke detection diagnostics company; Elastogenesis, a privately held pharmaceutical company developing therapies for dermal extracellular matrix regeneration; Western Oncolytics, a privately held pharmaceutical company developing oncolytic viruses; iGenomX, a privately held company developing genome sequencing reagents; Ariel Precision Medicine, a privately held diagnostics company focused on pancreatic disease; and ParaBase, a privately held company focused on developing neonatal genetic diagnostic tests. Dr. Stephan received his B.S. in Biology from Carnegie Mellon University and his Ph.D. in Human Genetics from the University of Pittsburgh. He also completed a fellowship at the National Human Genome Research Institute. We believe that Dr. Stephan's role as CEO of our Company, experience as the founder of Legacy NeuBase and in the biopharmaceutical industry qualify him to serve as a member of our Board.

Class III Directors Continuing in Office until 2023

The following directors will continue in office until the 2023 Annual Meeting, or until their earlier resignation or removal in accordance with our Bylaws:

Franklyn G. Prendergast, M.D., has served as a member of our Board since July 2019. Dr. Prendergast retired from the Mayo Clinic in 2014 and is currently the Emeritus Edmond and Marion Guggenheim Professor of Biochemistry and Molecular Biology and Emeritus Professor of Molecular Pharmacology and Experimental Therapeutics at Mayo Medical School. At the Mayo Clinic, he served in several capacities, most significantly, as the Director for Research 1989 – 1992, inclusive, Member of the Mayo Clinic Board of Governors and Executive Committee 1991 – 2007, and Member of the Mayo Clinic Board of Trustees from 1991-2009, inclusive. From 1994 to 2006, he served as a director of Mayo Clinic Cancer Center. He also previously held several other teaching positions at the Mayo Medical School from 1975 through 2014. Dr. Prendergast has served for the National Institute of Health on numerous study section review groups; as a charter member of the Board of Advisors for the Division of Research Grants, now the Center for Scientific Review; the National Advisory General Medical Sciences Council; and the Board of Scientific Advisors of the National Cancer Institute. He held a Presidential Commission for service on the National Cancer Advisory Board. Dr. Prendergast also has served in numerous other advisory roles for the National Institute of Health and the National Research Council of the National Academy of Sciences. He is a member of the board of directors of Immunome, Inc. (Nasdaq: IMNM) and its nominating and corporate governance committee, a member of the board of director of Cancer Genetics, Inc. (Nasdaq: CGIX) and its audit, compensation and nominating committees, a member of the board of directors of Lantern Pharma, Inc. (Nasdaq: LTRN) and its audit and nominating committees, and a member of the board of directors of the Infectious Disease Research Institute (IDRI). He previously served on the board of directors of Eli Lilly & Co. from 1995 to 2017 and was a member of Eli Lilly's science and technology committee and public policy and compliance committee, and he previously served on the board of directors of Medibio Limited (ASX: MEB) (OTCQB: MDBIF). Dr. Prendergast obtained his medical degree with honors from the University of West Indies and attended Oxford University as a Rhodes Scholar, earning an M.A. degree in physiology. He obtained his Ph.D. in Biochemistry at the University of Minnesota. We believe that Dr. Prendergast's extensive experience and expertise as a medical clinician, researcher and academician, particularly in the areas of oncology and personalized medicine, developed through his roles with Mayo Clinic, including serving as director of the Mayo Clinic Cancer Center and the Mayo Clinic Center for Individualized Medicine, qualify him to serve as a member on our Board.

Eric Ende, M.D., has served as a member of our Board since January 2022. Dr. Ende is the President of Ende BioMedical Consulting Group, Inc., a privately held consulting company focused on the life sciences industry, a position he has held since 2009. Since May 2017, Dr. Ende has been a member of the board of directors of Matinas BioPharma, Inc. (NYSE: MTNB), a clinical-stage biopharmaceutical company, where he chairs the Compensation Committee and serves on the Audit and Nominating & Corporate Governance Committees. Since December 2018, Dr. Ende has been a member of the board of directors of Avadel plc (Nasdaq: AVDL), a clinical-stage biopharmaceutical company, where he chairs the Nominating & Corporate Governance Committee and serves on the Audit Committee. From November 2019 to June 2020, Dr. Ende served on the board of directors of Progenics Pharmaceuticals, Inc. (Nasdaq: PGNX), a biopharmaceutical company, where he also chaired the Compensation Committee and was a member of the Audit and Science Committees. From 2010 to 2011, Dr. Ende served on the board of directors and as a

member of the Audit and Risk Management Committees of Genzyme Corp. (Nasdaq: GENZ), a biotechnology company, until it was acquired in 2011 by Sanofi S.A. From 2002 through 2008, Dr. Ende was the senior biotechnology analyst at Merrill Lynch; from 2000 through 2002, he was the senior biotechnology analyst at Bank of America Securities; and from 1997 to 2000, he was a biotechnology analyst at Lehman Brothers. Dr. Ende received an MBA in Finance and Accounting from NYU - Stern Business School in 1997, an MD from Mount Sinai School of Medicine in 1994, and a BS in Biology and Psychology from Emory University in 1990. We believe that Dr. Ende's extensive experience and expertise as a biotechnology executive and a member of the boards of directors of other biopharmaceutical companies, as well as his experience in financial matters and his service on audit and compensation committees qualify him to serve as a member on our Board.

Class I Directors Continuing in Office until 2024

The following directors will continue in office until the 2024 annual meeting of stockholders, or until their earlier resignation or removal in accordance with our Bylaws:

Dov A. Goldstein, M.D., has served as a member of our Board since July 2019. Dr. Goldstein is currently the Chief Financial Officer of BioAge Labs, Inc., as well as serving as on the Board of Directors of Gain Therapeutics, Inc. (Nasdaq: GANX) and Coya Therapeutics, Inc. He was previously Chief Financial Officer, Chief Business Officer and a director of Indapta Therapeutics, Inc., and he served as Chief Executive Officer and a director of RIGImmune, Inc., as well as a private investor. Prior to that, he was the Chief Financial Officer at Schrödinger, LLC from the fourth quarter of 2017 to the second quarter of 2018. Dr. Goldstein served as a Managing Partner at Aisling Capital, a private investment firm, from 2014 to October 2017, Partner from 2008 to 2014 and a principal at Aisling Capital from 2006 to 2008. Dr. Goldstein served as the Chief Financial Officer of Loxo Oncology, Inc. between July 2014 and January 2015, and was its acting Chief Financial Officer from January 2015 to May 2015. From 2000 to 2005, Dr. Goldstein served as Chief Financial Officer of Vicuron Pharmaceuticals, Inc., which was acquired by Pfizer, Inc. in September 2005. Prior to joining Vicuron, Dr. Goldstein was Director of Venture Analysis at HealthCare Ventures. Dr. Goldstein also completed an internship in the Department of Medicine at Columbia-Presbyterian Hospital. He previously served as a director of ADMA Biologics, Inc. (Nasdaq: ADMA), Loxo Oncology, Inc. (Nasdaq: LOXO) (which was acquired by Eli Lilly), Esperion Therapeutics, Inc. (Nasdaq: ESPR), and Cembra, Inc. (Nasdaq: CEMP) (which was acquired by Melinta Therapeutics, Inc.). Dr. Goldstein received a B.S. from Stanford University, an M.B.A. from Columbia Business School and an M.D. from Yale School of Medicine.

Eric I. Richman, has served as a member of our Board since July 2019. Mr. Richman is currently CEO of Gain Therapeutics, Inc. (Nasdaq: GANX), a biotechnology company and was previously a Venture Partner at Brace Pharma Capital, a life science venture capital firm, from January 2016 to September 2018 and is involved with several private and public biotechnology companies. He also served as Chief Executive Officer of Tyrogenex Inc., a biopharmaceutical company, from 2016 to 2018. Mr. Richman served as the President and Chief Executive Officer of PharmAthene, Inc. ("PharmAthene"), subsequently acquired by Altimmune, Inc., between October 2010 and March 2015. He also served on PharmAthene's board of directors, when the company was listed on the NYSE, from 2010 to 2017. Prior to joining PharmAthene, Mr. Richman held various commercial and strategic positions of increasing responsibility over a 12-year period at MedImmune, Inc. from its inception and was Director, International Commercialization at that company. Mr. Richman served as a director of Lev Pharmaceuticals, Inc. (acquired by Viropharma) and as Chairman of its Commercialization Committee and served as a director of American Bank Incorporated (acquired by Congressional Bancshares). Mr. Richman currently serves as a member of the board of directors of NovelStem International Corp. (OTCMKTS: NSTM), is the co-founder and Chairman of InFuse Holdings and LabConnect, Inc. where he serves as the Chairman of the Board, and previously served as a director of ADMA Biologics, Inc. (Nasdaq: ADMA) (as well as a member of such board's audit, compensation and governance and nominating committees). Mr. Richman received a B.S. in Biomedical Science from the Sophie Davis School of Biomedical Education (CUNY Medical School) and a M.B.A. from the American Graduate School of International Management. We believe that Mr. Richman's experience in the biotechnology industry, including his successful efforts in gaining FDA drug approvals, as well as his experience as an executive officer of PharmAthene and his service on numerous public and private company

boards of directors and on the committees of such boards, provide him with the qualifications and skills to serve as a member of our Board.

Vote Required and Majority Vote Standard

Members of the Board are elected by a plurality vote, which means that the two nominees receiving the most affirmative votes will be elected to the Board as Class II directors.

Any shares that are not voted, for any reason, including abstentions and broker non-votes, will not be counted as votes cast and will not affect the outcome of the election of directors.

Holders of proxies solicited by this Proxy Statement will vote the proxies received by them as directed on the proxy card or, if no direction is made, then FOR the election of the nominee named above.

Dr. Stephan and Mr. McDougall have an interest in this Proposal No. 1 — Election of Class II Directors, as they are currently members of the Board.

THE BOARD RECOMMENDS A VOTE *FOR* THE NOMINEES IDENTIFIED ABOVE.

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

The Audit Committee of the Board has selected Marcum LLP (“Marcum”) as our independent registered public accounting firm to audit our consolidated financial statements for the fiscal year ending September 30, 2022, and has further directed that we submit the selection of Marcum for ratification by our stockholders at the Annual Meeting. Although ratification is not required by our Bylaws or otherwise, the Board is submitting this proposal as a matter of good corporate practice. If the stockholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain Marcum. Even if the selection is ratified, the Audit Committee in its discretion may decide to appoint a different independent registered public accounting firm at any time during the year if the Audit Committee determines that such a change would be in the best interests of the Company and its stockholders. A representative of Marcum will be present at the Annual Meeting to make a statement and respond to appropriate questions. On October 2, 2019, the Audit Committee of the Board dismissed MaloneBailey as the Company’s independent registered public accounting firm effective as of that date. The Company then engaged CohnReznick to serve as the Company’s independent registered public accounting firm, and the Audit Committee of the Board later dismissed CohnReznick from such position effective as of February 12, 2020. The Company filed Current Reports on Form 8-K on October 3, 2019 and February 13, 2020, respectively, and a Current Report on Form 8-K/A on February 18, 2020, reporting these changes. MaloneBailey was not engaged to audit the Company’s financial statements for the fiscal year ended September 30, 2019.

CohnReznick’s audit report on the Company’s consolidated financial statements for the Company’s fiscal year ended September 30, 2019 did not contain any adverse opinions or disclaimers of opinions and were not qualified or modified as to uncertainty, audit scope, or accounting principles, except with respect to explanatory paragraphs indicating that there was substantial doubt about the Company’s ability to continue as a going concern.

During the fiscal year ended September 30, 2019 and the subsequent interim period from October 1, 2019 through October 2, 2019, there were (i) no disagreements within the meaning of Item 304(a)(1)(iv) of Regulation S-K between the Company and MaloneBailey on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to MaloneBailey’s satisfaction, would have caused MaloneBailey to make reference to the subject matter of the disagreements in connection with its reports on the Company’s consolidated financial statements for such years, and (ii) no “reportable events” within the meaning of Item 304(a)(1)(v) of Regulation S-K.

During the Company’s fiscal years ended September 30, 2020 and September 30, 2019, and the subsequent interim period from October 1, 2019 through October 2, 2019, neither the Company nor anyone acting on behalf of the Company, consulted with CohnReznick regarding (i) the application of accounting principles to a specific transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company’s consolidated financial statements, and neither a written report nor oral advice was provided to the Company that CohnReznick concluded was an important factor considered by the Company in reaching a decision as to any accounting, auditing, or financial reporting issue, (ii) any matter that was subject of a disagreement within the meaning of Item 304(a)(1)(iv) of Regulation S-K, or (iii) any “reportable event” within the meaning of Item 304(a)(1)(v) of Regulation S-K. During the interim period from October 2, 2019 through February 12, 2020, the Company believes that there were no “disagreements” as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions between the Company and CohnReznick, and that there was one reportable event with respect to a material weakness in internal control over financial reporting identified by the Company. During this same period, as expressed in CohnReznick’s letter furnished to us and addressed to the SEC that was filed as Exhibit 16.1 to the Company’s Current Report on Form 8-K/A filed on February 18, 2020, CohnReznick disagreed with the Company’s understanding that there were no such disagreements between the Company and CohnReznick, stating that they disagreed with certain personnel of the Company responsible for the presentation of its financial statements over the materiality of errors in the Company’s December 31, 2018 interim financial statements and whether a restatement of such interim financial statements was necessary. There have not been any other transactions or events similar to that which CohnReznick referred to in its letter during the fiscal year ended September 30, 2019 or subsequent thereto.

During the Company's fiscal years ended September 30, 2021 and September 30, 2020, and the interim period from October 1, 2019 through February 19, 2020, neither the Company nor anyone acting on behalf of the Company, consulted with Marcum regarding (i) the application of accounting principles to a specific transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's consolidated financial statements, and neither a written report nor oral advice was provided to the Company that Marcum concluded was an important factor considered by the Company in reaching a decision as to any accounting, auditing, or financial reporting issue, (ii) any matter that was subject of a disagreement within the meaning of Item 304(a)(1)(iv) of Regulation S-K, or (iii) any "reportable event" within the meaning of Item 304(a)(1)(v) of Regulation S-K.

Fees for Independent Registered Public Accounting Firm

The following is a summary of the fees billed to us by Marcum, our current independent registered public accounting firm, for professional services rendered for the fiscal years ended September 30, 2020, and September 30, 2021 respectively.

	<u>2021</u>	<u>2020</u>
Audit Fees ⁽¹⁾ :	\$272,950	\$455,620
Audit-Related Fees ⁽²⁾ :	—	—
Tax Fees ⁽³⁾ :	—	—
All Other Fees ⁽⁴⁾ :	—	—
Total All Fees:	<u>\$272,950</u>	<u>\$455,620</u>

- (1) Audit fees for fiscal 2021 consist of fees for professional services performed by Marcum for the audit of our 2021 annual financial statements that are included in our Annual Report on Form 10-K for the year ended September 30, 2021, fees for the review of financial statements included in our Quarterly Reports on Form 10-Q filed in fiscal 2021, and reviews of registration statements and issuances of consents, comfort letters and services that are normally provided in connection with statutory and regulatory filings or engagements. Audit Fees for fiscal 2020 consist of fees for professional services performed by Marcum for the audit of our 2020 annual financial statements that are included in our Annual Report on Form 10-K for the fiscal year ended September 30, 2020, review of financial statements included in our quarterly Form 10-Q filings, and reviews of registration statements and issuances of consents, comfort letters and services that are normally provided in connection with statutory and regulatory filings or engagements.
- (2) Audit-Related Fees consist of fees for other audit-related professional services.
- (3) Consists of fees for tax compliance and consulting
- (4) No other fees were earned or paid for the fiscal years ended September 30, 2021 or September 30, 2020.

Pre-Approval Policies and Procedures

All audit and non-audit services previously provided by our independent registered public accounting firm must be pre-approved by the Audit Committee. Pre-approval may be given for a category of services, provided that (i) the category is reasonably narrow and detailed and (ii) the Audit Committee establishes a fee limit for such category. The Audit Committee may delegate to any other member of the Audit Committee the authority to grant pre-approval of permitted non-audit services to be provided by Marcum between Audit Committee meetings; provided, however, that any such pre-approval shall be presented to the full Audit Committee at its next scheduled meeting. The Audit Committee pre-approved all audit and permitted non-audit services provided by Marcum LLP and CohnReznick for professional services rendered for the fiscal years ended September 30, 2021 and September 30, 2020.

Required Vote

Although our stockholders are not required to ratify the selection of Marcum as our independent registered public accounting firm, because we have submitted the ratification of our registered public

accounting firm for approval by stockholders, the affirmative vote of the holders of a majority of the shares present virtually or represented by proxy and voting at the Annual Meeting will be required to ratify the selection of Marcum as our independent registered public accounting firm for the fiscal year ending September 30, 2022.

THE BOARD RECOMMENDS A VOTE *FOR* RATIFICATION OF THE APPOINTMENT OF MARCUM LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDING SEPTEMBER 30, 2022.

PROPOSAL NO. 3
ADVISORY VOTE ON EXECUTIVE COMPENSATION

Our executive compensation program embodies a pay-for-performance philosophy that supports our business strategy and aligns the interests of our executives with our stockholders. In particular, our compensation program rewards financial, strategic and operational performance and the goals set for each performance category to support our short and long-term plans.

We are requesting that our stockholders vote to approve the compensation of our Named Executive Officers (defined below) as described within the section of this Proxy Statement entitled “Executive Compensation” pursuant to the SEC’s compensation disclosure rules, which disclosures include the compensation tables and the narrative discussion following the compensation tables.

This advisory vote is generally referred to as a “say-on-pay vote” and is being provided pursuant to Section 14A of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). In accordance with the results of the advisory vote held at our 2020 annual meeting of stockholders on the frequency of future say-on-pay votes, we are currently conducting say-on-pay votes every year.

The Board is asking stockholders to cast an advisory (non-binding) vote FOR the following resolution:

“RESOLVED, that the compensation paid to the Company’s Named Executive Officers, as disclosed pursuant to Item 402 of Regulation S-K, including the compensation tables and narrative discussion within the section of the Company’s Proxy Statement entitled “Executive Compensation,” is hereby APPROVED.”

Although the vote we are asking you to cast is non-binding, the Compensation Committee and the Board value the views of our stockholders and will consider the outcome of the vote when determining future compensation arrangements for our Named Executive Officers.

Our executive officers have an interest in Proposal No. 3 — Advisory Vote on Executive Compensation, as compensation for some of our executive officers is subject to this vote.

Required Vote

The affirmative vote of the holders of a majority of the shares present virtually or represented by proxy and voting at the Annual Meeting will be required to approve the advisory vote on executive compensation, as set forth in this Proxy Statement. This stockholder vote on named executive officer compensation is merely advisory and will not be binding upon us, our Board or our Compensation Committee. The outcome of the vote will not require us, our Board or our Compensation Committee to take any action or overrule any decision by the Company, our Board or the Compensation Committee. However, our Board and Compensation Committee value the opinions of our stockholders and will consider the outcome of the vote when making future executive compensation decisions.

THE BOARD RECOMMENDS A VOTE FOR APPROVAL, ON AN ADVISORY BASIS, OF THE COMPENSATION PAID TO THE COMPANY’S NAMED EXECUTIVE OFFICERS, AS DISCLOSED PURSUANT TO ITEM 402 OF REGULATION S-K, INCLUDING THE COMPENSATION TABLES AND NARRATIVE DISCUSSION WITHIN THE SECTION OF THIS PROXY STATEMENT ENTITLED “EXECUTIVE COMPENSATION.”

PROPOSAL NO. 4
AMENDMENTS TO THE COMPANY'S AMENDED AND RESTATED CERTIFICATE OF
INCORPORATION TO PERMIT OUR BOARD OF DIRECTORS TO APPROVE A REVERSE STOCK
SPLIT IN A RANGE OF ONE-FOR-FIVE TO A MAXIMUM OF A ONE-FOR-TWENTY

Background

The Board has approved a series of proposed amendments to the Company's amended and restated certificate of incorporation (the "Certificate of Incorporation") that would effect a reverse stock split of the Company's common stock, whereby each outstanding 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 or 20 shares, including any shares held by the Company as treasury shares, would be combined, converted and changed into one share of the Company's common stock. We refer to each of the alternative amendments in this Proxy Statement as a "Reverse Stock Split."

The effectiveness of any one of these amendments and the abandonment of the other amendments, or the abandonment of all of these amendments, will be determined by the Board following the Annual Meeting and prior to the 2023 Annual Meeting. The Board has declared these proposed amendments to be advisable and has recommended that these proposed amendments be presented to the Company's stockholders for approval.

Upon receiving stockholder approval of the proposed amendments, the Board will have the sole discretion, until the 2023 Annual Meeting, to elect, as it determines to be in the best interests of the Company and its stockholders, whether to effect a reverse stock split and, if so, the number of shares — 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 or 20 — of common stock — that will be combined into one share of common stock. The Board believes that stockholder approval of these 16 selected reverse split ratios (as opposed to approval of a single reverse split ratio) provides the Board with maximum flexibility to achieve the purposes of a reverse stock split and, therefore, is in the best interests of the Company and its stockholders.

If the Board determines to effect one of the alternative Reverse Stock Splits by filing the applicable amendment to the Certificate of Incorporation with the Secretary of State of the State of Delaware (the "Delaware Secretary of State"), the Certificate of Incorporation would be amended accordingly, and all other amendments will be abandoned. Approval of the Reverse Stock Splits will authorize the Board in its discretion to effectuate a Reverse Stock Split in any of the ratios described above, or not to effect any of the Reverse Stock Splits. The text of the form of amendments to the Certificate of Incorporation, one of which would be filed with the Delaware Secretary of State to effect the Reverse Stock Split, is set forth in Appendix A to this Proxy Statement. However, such text is subject to amendment to include such changes as may be required by the office of the Delaware Secretary of State or as the Board deems necessary and advisable to effect the Reverse Stock Split.

If the Board elects to effect a Reverse Stock Split, following stockholder approval, for Reverse Stock Splits in the range of 1-for-5 to 1-for-20, the number of issued and outstanding shares of common stock would be reduced in accordance with a reverse split ratio selected by the Board from among those set forth in this proposal. Except for adjustments that may result from the treatment of fractional shares as described below, each stockholder will hold the same percentage of outstanding common stock immediately following the Reverse Stock Split as such stockholder held immediately prior to the Reverse Stock Split. The par value of the common stock would remain unchanged at \$0.0001 per share. The Reverse Stock Splits would not change the number of authorized shares of common stock. There are currently no specific plans, arrangements, agreements or understandings for the issuance of the additional authorized but unissued and unreserved shares of common stock that would be created by the Reverse Stock Split.

The text of the proposed amendments to our Certificate of Incorporation to effect the Reverse Stock Split is included as Annex A to this proxy statement. If the Reverse Stock Split Proposal is approved by our stockholders, we will have the authority to file one of the amendments with the Secretary of State of the State of Delaware, which will become effective upon its filing or the effective time set forth in the amendment. The Board has determined that the amendment is advisable and in the best interests of the Company and its stockholders and has submitted the amendment for consideration by our stockholders at the Annual Meeting.

Reasons for the Reverse Stock Split

Although the proposed Reverse Stock Split will not have the effect of increasing the Company's equity market capitalization, we believe that implementing one of the alternative Reverse Stock Splits could provide benefits to the Company and our existing stockholders in a number of ways, including:

1. *Maintain our listing on the Nasdaq Capital Market.* Our common stock is traded on the Nasdaq Capital Market. Under applicable Nasdaq rules, if for 30 consecutive business days, the bid price for our common stock closes below the minimum \$1.00 per share requirement for continued inclusion on the Nasdaq Capital Market pursuant to Nasdaq Listing Rule 5550(a)(2) (the "Rule"), we would be notified by the Listing Qualifications Department (the "Staff") of the Nasdaq Stock Market. In order to regain compliance with the Rule, the bid price per share for our common stock must thereafter close at \$1.00 or more for a minimum of 10 consecutive business days during the 180-day compliance period set forth in Nasdaq Listing Rule 5810(c)(3)(A). If we do not regain compliance with the Rule during this 180-day compliance period, we could be eligible for an additional 180-day compliance period, provided that we meet the continued listing requirement for market value of publicly held shares and all other standards for initial listing on the Nasdaq Capital Market (except the bid price requirement), and provide written notice to the Staff of our intention to cure the minimum bid price deficiency during the second compliance period, by effecting a reverse stock split, if necessary. If the Company fails to regain compliance with the Rule after the latest applicable compliance period provided by the Staff, our common stock will be subject to delisting by Nasdaq.

As the bid price of our common stock closed below \$1.00 per share for a period of time in May, June and July 2022, out of an abundance of caution and to preserve our ability to act expeditiously to remain in compliance, the Board has considered and endorsed inclusion of this proposal in our proxy statement.

The Board has considered the potential harm to the Company and its stockholders should Nasdaq delist our common stock from the Nasdaq Capital Market. Delisting could adversely affect the liquidity of our common stock because alternatives, such as the OTC Bulletin Board and the pink sheets, are generally considered to be less liquid and efficient markets. An investor likely would find it less convenient to sell, or to obtain accurate quotations in seeking to buy, our common stock on an over-the-counter market. Many investors likely would not buy or sell our common stock due to difficulty in accessing over-the-counter markets, policies preventing them from trading in securities not listed on a national exchange or other reasons. Current contractual arrangements also require that the Company take commercially reasonable efforts to maintain its listing. The Board believes that a reverse stock split is a potentially effective means for us to regain compliance with the Rule as needed and to avoid the adverse consequences of our common stock being delisted from the Nasdaq Capital Market by producing the immediate effect of increasing the bid price for our common stock.

2. *Stock Price Volatility.* We have been advised by our financial advisors that a higher stock price may increase the acceptability of our common stock to investors who may not find shares of our common stock attractive at the current market price due to the trading volatility often associated with stocks below certain prices.
3. *Transaction Costs.* Investors also may be dissuaded from purchasing stocks below certain prices because the brokerage commissions, as a percentage of the total transaction value, tend to be higher for such low-priced stocks.
4. *Stock Price Requirements.* We understand that many brokerage houses and institutional investors have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers or by restricting or limiting the ability to purchase such stocks on margin.

Board Discretion to Implement or Abandon Reverse Stock Split

If the alternative Reverse Stock Splits are approved by the Company's stockholders at the Annual Meeting, the actual Reverse Stock Split will be effected, if at all, only upon a subsequent determination by

the Board that one of the Reverse Stock Splits is, at that time, in the best interests of the Company and its stockholders. Such determination will be based upon many factors, including the trading price of our common stock relative to the Nasdaq minimum listing requirements, as well as those other factors described in the following paragraph. Notwithstanding approval of the Reverse Stock Splits by the stockholders, the Board may, in its sole discretion (without further action by our stockholders), abandon all of the proposed amendments and determine prior to the effectiveness of any filing with the Delaware Secretary of State not to effect any of the Reverse Stock Splits, as permitted under Section 242(c) of the DGCL. By voting in favor of the Reverse Stock Split, you are expressly also authorizing the Board to determine not to proceed with, and to abandon, the Reverse Stock Split if it should so decide. If the Board decides not to implement any of the Reverse Stock Splits before the 2023 Annual Meeting, further stockholder approval would be required prior to implementing any reverse stock split.

Criteria to Be Used for Decision to Effect a Reverse Stock Split

If the stockholders approve the Reverse Stock Splits, the Board will be authorized to proceed with any of the alternative Reverse Stock Splits that it selects in its sole discretion. In determining whether to proceed with a Reverse Stock Split, the Board expects to consider a number of factors, including market conditions, existing and expected trading prices of our common stock, our actual and projected financial performance, the Nasdaq Capital Market listing requirements, our additional funding requirements, overall trends in the stock market, business developments, and the amount of our authorized but unissued common stock. The Board does not intend for this transaction to be the first step in a series of plans or proposals of a “going private” transaction within the meaning of Rule 13e-3 of the Exchange Act.

The Board believes that stockholder approval of a range of potential Reverse Stock Split ratios is in the best interests of our Company and stockholders because it is not possible to predict market conditions at the time the Reverse Stock Split would be implemented. We believe that a range of Reverse Stock Split ratios provides us with the most flexibility to achieve the desired results of the Reverse Stock Split. The Reverse Stock Split ratio to be selected by our Board will be not more than 1-for-20.

Determination of the Reverse Split Ratio

The selection of the specific Reverse Stock Split ratio will be based on several factors, including, among other things:

- our ability to maintain the listing of our common stock on the Nasdaq Capital Market;
- the per share price of our common stock immediately prior to the Reverse Stock Split;
- the expected stability of the per share price of our common stock following the Reverse Stock Split;
- the likelihood that the Reverse Stock Split will result in increased marketability and liquidity of our common stock;
- general economic conditions in our industry; and
- our market capitalization before and after the Reverse Stock Split.

We believe that granting our Board the authority to set the ratio for the Reverse Stock Split is essential because it allows us to take these factors into consideration and to react to changing market conditions. If the Board chooses to implement the Reverse Stock Split, we will make a public announcement regarding the determination of the Reverse Stock Split ratio.

Principal Effects of the Reverse Stock Split

After any of the Reverse Stock Splits, each stockholder will own a reduced number of shares of common stock. This would affect all of the Company’s stockholders uniformly and would not affect any stockholder’s percentage ownership in the Company, except to the extent that the Reverse Stock Split results in a stockholder owning a fractional share as described below. The number of stockholders of record would not be affected by the Reverse Stock Split, except to the extent that any stockholder holds only a fractional share interest and receives cash for such interest after the Reverse Stock Split.

Proportionate voting rights and other rights of the holders of common stock would not be affected by the Reverse Stock Split (other than as a result of the payment of cash in lieu of fractional shares as described below). For example, a holder of 5% of the voting power of the outstanding shares of common stock immediately prior to the Reverse Stock Split would continue to hold 5% of the voting power of the outstanding shares of common stock after the Reverse Stock Split.

Our Certificate of Incorporation presently authorizes 250,000,000 shares of common stock and 10,000,000 shares of preferred stock. The Reverse Stock Splits would not change the number of authorized shares of common stock or preferred stock. Therefore, because the number of issued and outstanding shares of common stock would decrease, the number of shares remaining available for issuance by us in the future would increase. These additional shares would be available for issuance from time to time for corporate purposes such as issuances of common stock in connection with capital-raising transactions and acquisitions of companies or other assets, as well as for issuance upon conversion or exercise of securities such as convertible debt, warrants or options convertible into or exercisable for common stock. We believe that the availability of the additional shares will provide us with flexibility to meet business needs as they arise, to take advantage of favorable opportunities and to respond effectively in a changing corporate environment. If we issue additional shares for any of these purposes, the aggregate ownership interest of our current stockholders, and the interest of each such existing stockholder, would be diluted, possibly substantially. There are currently no specific plans, arrangements, agreements or understandings for the issuance of the additional authorized but unissued and unreserved shares of common stock that would be created by the Reverse Stock Split.

The increase in the number of shares of authorized but unissued and unreserved common stock will have an “anti-takeover effect” by permitting the issuance of shares to purchasers who might oppose a hostile takeover bid or oppose any efforts to amend or repeal certain provisions of the Certificate of Incorporation or our amended and restated bylaws. The increased number of available authorized but unissued shares as a result of the Reverse Stock Split would give the Company’s management more flexibility to resist or impede a third-party takeover bid that provides an above-market premium that is favored by a majority of the independent stockholders. Any such anti-takeover effect created by a reverse stock split would be in addition to existing anti-takeover provisions of the Certificate of Incorporation and our amended and restated bylaws.

The Reverse Stock Split would reduce the number of shares of common stock available for issuance under the Company’s 2019 Stock Incentive Plan in proportion to the reverse split ratio of the Reverse Stock Split. On the Record Date, the number of shares of common stock authorized for issuance but unissued under the 2019 Equity Incentive Plan was 875,646.

The Reverse Stock Split would reduce the number of shares of common stock available for issuance under the Company’s Ohr 2016 Consolidated Stock Incentive Plan in proportion to the reverse split ratio of the Reverse Stock Split. On the Record Date, the number of shares of common stock authorized for issuance but unissued under the 2016 Consolidated Stock Incentive Plan was 147,041.

The Company also has 8,360,896 shares of common stock subject to outstanding stock awards as of the Record Date. Under the terms of the various instruments governing the Company’s outstanding stock awards, the Reverse Stock Split will effect a reduction in the number of shares of common stock issuable upon the exercise or vesting of such stock awards in proportion to the reverse split ratio of the Reverse Stock Split. The Reverse Stock Split will effect a proportionate increase in the exercise price of the Company’s outstanding stock options. In connection with the Reverse Stock Split, the number of shares of common stock issuable upon exercise or conversion of outstanding stock awards will be rounded down to the nearest whole share and the exercise prices will be rounded up to the nearest cent, and no cash payment will be made in respect of such rounding.

The Reverse Stock Split would reduce the number of shares of common stock issuable upon the exercise of our outstanding warrants exercisable for shares of common stock in proportion to the Reverse Stock Split ratio. The exercise price of outstanding warrants would increase, likewise in proportion to the Reverse Stock Split ratio.

The following table contains approximate information relating to the common stock, as of the Record Date, before and after giving effect to a hypothetical Reverse Stock Split of one-for-five (1-for-5), one-for-ten (1-for-10), one-for-fifteen (1-for-15) and one-for-twenty (1-for-20). However, the sample Reverse Stock

Split ratios in the table are examples, if stockholder approval of the proposed amendments is received, the Board will have the sole discretion, until the 2023 Annual Meeting, to elect, as it determines to be in the best interests of the Company and its stockholders, whether to effect a reverse stock split and, if so, the number of shares — 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 or 20-of common stock — that will be combined into one share of common stock. The table below does not include the 10,000,000 shares of preferred stock authorized (all of which are undesignated and none of which are outstanding) under the Certificate of Incorporation. The Reverse Stock Split would have no effect on our authorized preferred stock. The figures below do not give effect to the treatment of fractional shares.

	Pre-Reverse Split	Post-Reverse Split			
		5:1	10:1	15:1	20:1
Authorized	250,000,000	250,000,000	250,000,000	250,000,000	250,000,000
Outstanding	(32,258,657)	(6,451,731)	(3,225,866)	(2,150,577)	(1,612,933)
Reserved for future issuance pursuant to employee benefit plans	—	—	—	—	—
Reserved for future issuance pursuant to outstanding options	(8,360,896)	(1,672,179)	(836,090)	(557,393)	(418,045)
Reserved for future issuance pursuant to outstanding warrants	(180,000)	(36,000)	(18,000)	(12,000)	(9,000)
Authorized but unissued and unreserved	209,200,447	241,840,089	245,920,045	247,280,030	247,960,022

No fractional shares of common stock will be issued in connection with the proposed Reverse Stock Split. Holders of common stock who would otherwise receive a fractional share of common stock pursuant to the Reverse Stock Split will receive cash in lieu of the fractional share as explained more fully below.

The common stock is currently registered under Section 12(b) of the Exchange Act, and the Company is subject to the periodic reporting and other requirements of the Exchange Act. The Reverse Stock Split would not affect the registration of the common stock under the Exchange Act. After the Reverse Stock Split, the common stock would continue to be reported on the Nasdaq Capital Market under the symbol “NBSE” (although Nasdaq would likely add the letter “D” to the end of the trading symbol for a period of approximately 20 trading days to indicate that the Reverse Stock Split has occurred).

Certain Risks and Potential Disadvantages Associated with the Reverse Stock Split

If the Reverse Stock Split is implemented, some stockholders may consequently own less than one hundred shares of common stock. A purchase or sale of less than one hundred shares (an “odd lot” transaction) may result in incrementally higher trading costs through certain brokers, particularly “full service” brokers. Therefore, those stockholders who own less than one hundred shares following the Reverse Stock Split may be required to pay mostly higher transaction costs should they then determine to sell their shares in the Company.

The effect of the Reverse Stock Split upon the market prices for the common stock cannot be accurately predicted, and the history of similar stock split combinations for companies in like circumstances is varied. In particular, there is no assurance that the price per share of our common stock after the Reverse Stock Split will be 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 or 20 times, as applicable, the price per share of our common stock immediately prior to the Reverse Stock Split. Furthermore, there can be no assurance that the market price of the common stock immediately after the proposed Reverse Stock Split will be maintained for any period of time. Even if an increased share price can be maintained, the Reverse Stock Split may not achieve the other desired results which have been outlined above. In particular, we cannot assure you that the proposed Reverse Stock Split will increase our stock price and have the desired effect of maintaining compliance with applicable Nasdaq rules for listing on the Nasdaq Capital Market. Moreover, because some investors may view a Reverse Stock Split negatively, there can be no assurance that approval of the Reverse Stock Splits will not adversely impact the market price of the common stock or, alternatively, that the market price following the Reverse Stock Split will either exceed or remain in excess of the current market price.

In addition, although we believe the Reverse Stock Split may enhance the desirability of our common stock to certain potential investors, we cannot assure you that, if implemented, our common stock will be more attractive to institutional and other long-term investors. In addition, the Reverse Stock Split may decrease, or may not increase, the liquidity of our common stock since there would be a reduced number of shares outstanding after the Reverse Stock Split.

The Reverse Stock Split may be viewed negatively by the market and, consequently, could lead to a decrease in our overall market capitalization. If the per share market price of our common stock does not increase in proportion to the Reverse Stock Split ratio, then the value of our Company, as measured by our market capitalization, will be reduced. Additionally, any reduction in our market capitalization may be magnified as a result of the smaller number of total shares of common stock outstanding following the Reverse Stock Split.

Effective Date

If the proposed Reverse Stock Splits are approved at the Annual Meeting and the Board elects to proceed with the Reverse Stock Split in one of the approved ratios, the Reverse Stock Split would become effective as of 5:00 p.m., Eastern time, on the date of the filing (the "Effective Time") of the applicable certificate of amendment to the Certificate of Incorporation with the office of the Delaware Secretary of State. Except as explained below with respect to fractional shares, at the Effective Time, all shares of common stock issued and outstanding immediately prior thereto will be, automatically and without any action on the part of the stockholders, combined and converted into new shares of common stock in accordance with the Reverse Stock Split ratio determined by the Board following the Annual Meeting. If the Board decides not to implement any of the Reverse Stock Splits before the 2023 Annual Meeting, further stockholder approval would be required prior to implementing any reverse stock split.

Exchange of Stock Certificates

As soon as practicable after the effective date of the Reverse Stock Split, stockholders will be notified that the Reverse Stock Split has been effected. Standard Registrar and Transfer Company, our transfer agent, will act as exchange agent for purposes of implementing the exchange of stock certificates. Holders of pre-split shares will be asked to surrender to the exchange agent certificates representing pre-split shares in exchange for certificates representing post-split shares in accordance with the procedures to be set forth in a letter of transmittal that will be delivered to our stockholders. No new certificates will be issued to a stockholder until the stockholder has surrendered to the exchange agent his, her or its outstanding certificate(s) together with the properly completed and executed letter of transmittal. In connection with the Reverse Stock Split, the CUSIP number for the common stock will change from its current CUSIP number. This new CUSIP number will appear on any new stock certificates issued representing post-split shares. **STOCKHOLDERS SHOULD NOT DESTROY ANY STOCK CERTIFICATES AND SHOULD NOT SUBMIT THEIR STOCK CERTIFICATES UNTIL THEY RECEIVE A TRANSMITTAL FORM FROM OUR EXCHANGE AGENT. STOCKHOLDERS ARE ENCOURAGED TO PROMPTLY SURRENDER CERTIFICATES TO THE EXCHANGE AGENT FOLLOWING RECEIPT OF TRANSMITTAL FORMS IN ORDER TO AVOID HAVING SHARES POSSIBLY BECOMING SUBJECT TO ESCHEAT LAWS.**

Stockholders whose shares are held by their stockbroker do not need to submit old share certificates for exchange. These shares will automatically reflect the new quantity of shares based on the selected Reverse Stock Split ratio. Beginning on the effective date of the Reverse Stock Split, each certificate representing pre-split shares will be deemed for all corporate purposes to evidence ownership of post-split shares.

Cash Payment In Lieu of Fractional Shares

No fractional shares of common stock will be issued as a result of the Reverse Stock Split. Instead, in lieu of any fractional shares to which a holder of common stock would otherwise be entitled as a result of the Reverse Stock Split, the Company shall pay cash equal to such fraction multiplied by the closing sales price of the common stock as reported on the Nasdaq Capital Market on the last trading day immediately preceding the Effective Time. After the Reverse Stock Split, then-current stockholders would have no further interest in our company with respect to their fractional shares. A person otherwise entitled to a fractional

share would not have any voting, dividend or other rights in respect of his or her fractional share except to receive the cash payment as described above. In addition, such cash payments would reduce the number of post-split stockholders to the extent that there are stockholders holding fewer than that number of pre-split shares within the range of exchange ratios described above.

As of the Record Date, there were approximately 9,572 stockholders of record of our common stock. Upon stockholder approval of this proposal, if the Board elects to implement the Reverse Stock Split, the Company does not expect that cashing out fractional stockholders would significantly reduce the number of stockholders of record. Reducing the number of post-split stockholders, however, is not the purpose of this proposal.

Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where we are domiciled and where the funds for fractional shares would be deposited, sums due to stockholders in payment for fractional shares that are not timely claimed after the effective date may be required to be paid to the designated agent for each such jurisdiction. Thereafter, stockholders otherwise entitled to receive such funds may have to seek to obtain them directly from the state to which they were paid.

Accounting Consequences

The par value per share of our common stock would remain unchanged at \$0.0001 per share after the Reverse Stock Split. As a result, on the effective date of the reverse stock split, the amount on our balance sheet attributable to our common stock would be reduced proportionally, based on the exchange ratio of the reverse stock split, from its present amount, and the additional paid-in capital account would be credited with the amount by which the common stock is reduced. The per share common stock net loss would be increased because there would be fewer shares of our common stock outstanding. We do not anticipate that any other accounting consequences would arise as a result of the Reverse Stock Split.

No Appraisal Rights

Under the DGCL, our stockholders do not have a right to dissent and are not entitled to appraisal rights with respect to the proposed amendments to our Certificate of Incorporation to effect the Reverse Stock Split, and we will not independently provide our stockholders with any such rights.

Regulatory Approvals

The Reverse Stock Split will not be consummated, if at all, until after approval of our stockholders is obtained. We are not obligated to obtain any governmental approvals or comply with any state or federal regulations in order to effect the Reverse Stock Split other than the filing of the applicable certificate of amendment to our Certificate of Incorporation with the Secretary of State of the State of Delaware.

Certain U.S. Federal Income Tax Consequences

The following discussion is a general summary of certain U.S. federal income tax consequences of the proposed Reverse Stock Split that may be relevant to U.S. holders (as defined below) of our common stock, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended (the "Code"), Treasury regulations promulgated thereunder (the "Treasury Regulations"), judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the "IRS"), in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a holder of our common stock. We have not sought and will not seek an opinion of counsel or any rulings from the IRS regarding the matters discussed below. There can be no assurance that the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the proposed Reverse Stock Split.

This discussion is limited to holders that hold our common stock as "capital assets" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not

address all U.S. federal income tax consequences relevant to a holder's particular circumstances, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to holders subject to special rules, including, without limitation: persons that are not U.S. holders (as defined below); persons subject to the alternative minimum tax; U.S. holders (as defined below) whose functional currency is not the U.S. dollar; persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment; banks, insurance companies, and other financial institutions; real estate investment trusts or regulated investment companies; brokers, dealers or traders in securities; corporations that accumulate earnings to avoid U.S. federal income tax; S corporations, partnerships or other entities or arrangements treated as partnerships or pass-through entities for U.S. federal income tax purposes (and investors therein); tax-exempt organizations or governmental organizations; persons deemed to sell our common stock under the constructive sale provisions of the Code; persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation; and tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT INTENDED AS TAX ADVICE. HOLDERS OF OUR COMMON STOCK SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT ARISING UNDER OTHER U.S. FEDERAL TAX LAWS (INCLUDING ESTATE AND GIFT TAX LAWS), UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY.

For purposes of this discussion, a "U.S. holder" is a beneficial owner of our common stock who is for U.S. federal income tax purposes: (i) an individual who is a citizen or resident of the United States; (ii) a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof, or the District of Columbia; or (iii) an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

The proposed Reverse Stock Split is expected to be treated as a recapitalization for U.S. federal income tax purposes. Therefore, except as described below with respect to cash received in lieu of fractional shares, no gain or loss will be recognized upon the proposed reverse stock split. Accordingly, the aggregate tax basis of the U.S. holder in the new shares should equal the U.S. holder's aggregate tax basis in its old shares of common stock (excluding the portion of the tax basis that is allocable to any fractional share), and the holding period for the new shares should include the holding period for the old shares. Holders of shares of our common stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

A U.S. holder who receives cash in lieu of a fractional share of our common stock pursuant to the proposed Reverse Stock Split should recognize capital gain or loss in an amount equal to the difference between the amount of cash received and the portion of the U.S. holder's tax basis in the old shares that is allocated to such fractional share of our common stock. Such capital gain or loss will be long-term capital gain or loss if the U.S. holder has held the old shares for more than one year as of the effective date of the proposed Reverse Stock Split. The deductibility of capital losses is subject to limitations.

Payments of cash made in lieu of a fractional share of our common stock may, under certain circumstances, be subject to information reporting and "backup withholding." To avoid backup withholding, each holder of our shares of common stock that does not otherwise establish an exemption should furnish its taxpayer identification number and comply with the applicable certification procedures. Backup withholding is not an additional tax and amounts withheld will be allowed as a credit against the holder's U.S. federal income tax liability and may entitle such holder to a refund, provided the required information is timely furnished to the IRS.

Interests of Certain Persons in the Proposal

Certain of our officers and directors have an interest in Proposal No. 4 as a result of their ownership of shares of our common stock, as set forth in the section entitled “Security Ownership of Certain Beneficial Owners and Management” below. However, we do not believe that our officers or directors have interests in Proposal No. 4 that are different from or greater than those of any other of our stockholders.

Vote Required

Pursuant to the DGCL, the affirmative vote of the holders of a majority of the voting power of the outstanding shares of Common Stock entitled to vote on the proposal is required to approve the Reverse Stock Split.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE *FOR* THE APPROVAL OF THE SERIES OF ALTERNATE AMENDMENTS TO OUR AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A REVERSE STOCK SPLIT AT THE BOARD OF DIRECTORS’ DISCRETION AS DESCRIBED ABOVE IN THIS PROPOSAL NO. 4.

BOARD OF DIRECTORS AND COMMITTEES AND CORPORATE GOVERNANCE**Meetings of the Board**

During the fiscal year ended September 30, 2021, the Board met five times and acted by unanimous written consent eleven times. Each director attended at least 75% of the meetings of the Board and of the meetings of the committees of the Board on which they served during the periods that they served. Although we expect directors to attend each annual meeting of stockholders, we have no formal policy requiring attendance by directors at annual stockholder meetings. Dr. Stephan and Mr. Richman were two members of the Board serving at the time of our 2021 annual meeting of stockholders who attended the 2021 annual meeting of stockholders.

Committees of the Board

There are currently three active committees of the Board: the Audit Committee, the Nominating and Corporate Governance Committee and the Compensation Committee. Below are descriptions of our three active Board committees.

The Audit Committee regularly meets with our financial and accounting management and independent auditors and is responsible for the selection and engagement of the Company's independent auditors.

Additionally, the Audit Committee reviews with the independent auditors the scope and results of the audit engagement, approves professional services provided by the independent auditors, reviews the independence of the independent auditors and reviews the adequacy of the internal accounting controls. The Audit Committee acts under a written charter, a copy of which is available on our website at <https://ir.neubasetherapeutics.com/corporate-governance/governance-documents>. In the fiscal year ended September 30, 2021, the Audit Committee met four times and acted by unanimous written consent once. As of the Record Date, the Audit Committee consisted of Dov Goldstein, M.D., M.B.A. (Chair), Franklyn Prendergast, M.D., Ph.D. and Eric Richman, M.B.A., none of whom was an employee of the Company and each of whom met the applicable independence standards promulgated by the Nasdaq Marketplace and those of the Securities and Exchange Commission (the "SEC"). The Board has also determined that each of Dr. Goldstein and Mr. Richman qualify as an "audit committee financial expert," as defined in Item 407(d)(5) of the SEC's Regulation S-K.

The Nominating and Corporate Governance Committee makes recommendations to the Board regarding the election of directors, as well as providing guidance and oversight on matters relating to corporate governance. The Nominating and Corporate Governance Committee acted by unanimous consent once and did not meet for the fiscal year ended September 30, 2021. As of the Record Date, the Nominating and Corporate Governance Committee consisted of Eric I. Richman (Chair), Gerry J. McDougall and Eric Ende, none of whom was an employee of the Company and each of whom met the independence requirements of the Nasdaq Marketplace. The Nominating and Corporate Governance Committee acts under a written charter, which is available on our website at <https://ir.neubasetherapeutics.com/corporate-governance/governance-documents>. We have not paid any third party a fee to assist in the process of identifying and evaluating candidates for director, and as of the Record Date, we have not received any nominees for director from any stockholder or stockholder group for the Annual Meeting in accordance with the nominating procedures set forth in our Bylaws and the charter for our Nominating and Corporate Governance Committee.

The Compensation Committee determines compensation levels for our executive officers, implements incentive programs for officers, directors and consultants and administers our equity compensation plans. In the fiscal year ended September 30, 2021, the Compensation Committee met two times and acted by unanimous written consent ten times. As of the Record Date, the Compensation Committee consisted of Eric Richman (Chair), Dr. Franklyn G. Prendergast, Gerry J. McDougall and Eric Ende, none of whom was an employee of the Company and each of whom met the independence requirements of the Nasdaq Marketplace and those of the SEC. The Compensation Committee acts under a written charter, a copy of which is posted on the Company's website at <https://ir.neubasetherapeutics.com/corporate-governance/governance-documents>.

The Company's independent compensation consultants as well as executive officers and management have played important roles in making recommendations and formulating compensation plans for our employees, including the Named Executive Officers.

Our Compensation Committee has the authority to retain the services and obtain the advice of external advisors, including compensation consultants, legal counsel and other advisors to assist in the evaluation of executive officer compensation. In 2021, our Compensation Committee engaged Compensia, an independent executive compensation consulting firm, to review our executive compensation policies and practices and to conduct an executive compensation market analysis. During fiscal 2021, Compensia reviewed and advised on principal aspects of our executive compensation program, including: (i) assisting in developing a peer group of publicly traded companies to be used to help assess executive compensation; (ii) assisting in developing a competitive compensation strategy and consistent executive compensation assessment practices relevant to a public company, including review and recommendation of the annual performance-based cash incentive program as well as the equity strategy for the Company covering dilution, grant levels and type of equity; and (iii) meeting with the Compensation Committee to review elements of executive compensation including the competitiveness of the executive compensation program. After review, the Compensation Committee has determined that there is no conflict of interest resulting from retaining Compensia currently or during the year ended September 30, 2021. In reaching these conclusions, the Compensation Committee considered the factors set forth in Exchange Act Rule 10C-1.

The Compensation Committee may delegate authority for day-to-day administration and interpretation of the Company's various compensation plans, including the selection of participants, the determination of award levels and the approval of award documents to our non-officer employees. However, the Compensation Committee may not delegate any authority under those plans for matters affecting the compensation and benefits of the Company's Named Executive Officers. Compensation recommendations and performance assessments of Named Executive Officers from the Company's Chief Executive Officer are considered by the Compensation Committee in determining the total compensation packages for Named Executive Officers (excluding the Chief Executive Officer). The Named Executive Officers are not present for any Board or Board committee discussions relating to their compensation.

Director Nominations and Stockholder Communications

Our Nominating and Corporate Governance Committee considers candidates for the Board submitted in writing to the Nominating and Corporate Governance Committee. Candidates may be submitted by our executive officers, current directors, search firms engaged by the Nominating and Corporate Governance Committee, and subject to the conditions described below, by a stockholder. Information with respect to any proposed candidate shall be provided in writing to the Nominating and Corporate Governance Committee, c/o NeuBase Therapeutics, Inc., 350 Technology Drive, Pittsburgh, PA 15219, Attn: Secretary. A nominating stockholder shall provide evidence that he, she or it is a stockholder (including the name and address of the nominating stockholder, information relating to all shares deemed beneficially held by the nominating stockholder and the time period for which such shares have been held), as well as a statement of an intent to hold such shares through the date of the Company's next annual meeting. The written request shall also provide the name, contact information, biographical information and qualifications of the Board candidate(s) and information relating to all shares deemed beneficially held by such candidate(s), and must also include the candidate's written consent to being named in the proxy statement as a nominee and to serving as a director if nominated and elected. The stockholder shall include such other information with respect to the nominee required under the rules and regulations of the SEC to be included in our proxy statement if such proposed candidate were to be included therein. In addition, the stockholder shall include a statement that the proposed candidate has no direct or indirect business conflict of interest with the Company, consents to be interviewed by the Nominating and Corporate Governance Committee if it so chooses and otherwise meets our standards set forth below.

There are currently no specific, minimum or absolute criteria for Board membership. Candidates are evaluated based upon a number of factors, including integrity, experience, judgment, commitment, skills, diversity, age, gender, race, background, place of residence, areas of expertise, experience serving as a board member or executive officer of other companies, relevant academic expertise and other factors relative to the overall composition of the Board and Board committees. The Nominating and Corporate Governance does not alter its evaluation practices with regards to potential Board candidates recommended by a stockholder.

Any other stockholder communications intended for our management or the Board shall be submitted in writing to the Chair of the Nominating and Corporate Governance Committee (at the Company's address

provided in this Proxy Statement) who shall determine whether to forward the communication, in his or her discretion and considering the identity of the submitting stockholder and the materiality and appropriateness of the communication.

Director Independence

Our common stock is listed on the Nasdaq Capital Market. Under the rules of Nasdaq Stock Market LLC (the “Nasdaq Rules”), independent directors must comprise a majority of a listed company’s board of directors. In addition, the Nasdaq Rules require that, subject to specified exceptions, each member of a listed company’s audit, compensation and nominating and corporate governance committees be independent. Under the Nasdaq Rules, a director will only qualify as an “independent director” if, in the opinion of the listed company’s board of directors, the director does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit Committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act and the Nasdaq Rules. In addition, Compensation Committee members must satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act and the Nasdaq Rules.

Our Board has determined that Drs. Goldstein, Prendergast and Ende, and Messrs. Richman and McDougall, meet the definitions of independence under the Nasdaq Marketplace Rules and Section 10A-3 of Exchange Act. Accordingly, all of our directors, other than our Chief Executive Officer, Dr. Stephan, are deemed to be independent.

Code of Ethics

We have adopted a Code of Conduct and Ethics, as amended, that applies to our Chief Executive Officer and to all of our other officers, directors and employees. The Code of Conduct and Ethics is available in the Governance section of the Investors page on our website at <https://ir.neubasetherapeutics.com/corporate-governance/governance-documents>. We will disclose future amendments to, or waivers from, certain provisions of our Code of Conduct and Ethics, if any, on the above website within four business days following the date of such amendment or waiver.

Board Leadership Structure

Our Board believes that our CEO is best situated to serve as Chairman because he is the director who is most familiar with our business and industry, possesses detailed and in-depth knowledge of the issues, opportunities and challenges facing us and is therefore best positioned to ensure that the Board’s time and attention are focused on the most critical matters. Our independent directors bring experience, oversight and expertise from outside the Company and industry, while the CEO brings Company-specific experience and expertise. The Board believes that the combined role of Chairman and CEO facilitates information flow between management and the Board, which is essential to effective governance. We have no lead independent director.

Board’s Role in Risk Oversight

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including, but not limited to, risks relating to product candidate development, technological uncertainty, dependence on clients and collaborative partners, uncertainty regarding patents and proprietary rights, comprehensive government regulations, marketing or sales capability or experience, business integration, dependence on key personnel and general economic, market and global health conditions (including the impact of COVID-19). Management is responsible for the day-to-day management of the risks we face, while our Board as a whole and through its committees, is responsible for the oversight of risk management. Our Board believes its administration of its risk oversight function has not affected its leadership structure.

Board oversight is conducted primarily through committees of the Board, including the Audit Committee, Compensation Committee and the Nominating and Corporate Governance Committee. However, the full Board has retained responsibility for general risk oversight. Our Board satisfies this

responsibility, in part, through reports by each committee chair regarding the committees' considerations and actions. The Board also has the responsibility of ensuring compliance with the risk management processes designed and implemented by management, which it satisfies through reports directly from the officer responsible for oversight of particular risks within our Company. The Board believes that full and open communication between management and the Board is essential for effective risk management and oversight.

Compensation Committee Interlocks and Insider Participation

Each member of the Compensation Committee is a "non-employee" director within the meaning of Rule 16b-3 of the rules promulgated under the Exchange Act. None of Drs. Prendergast, Ende and Goldstein or Messrs. McDougall or Richman is an officer or employee of ours, was formerly an officer of ours or had any relationship requiring disclosure by us under Item 404 of Regulation S-K. No interlocking relationship as described in Item 407(c)(4) of Regulation S-K exists between any of our executive officers or Compensation Committee members, on the one hand, and the executive officers or compensation committee members of any other entity, on the other hand, nor has any such interlocking relationship existed in the past.

Prohibition on Hedging Transactions; Treatment of Pledging Transactions

Our insider trading policy prohibits any director or employee (including our executive officers) of ours from engaging in hedging or monetization transactions, such as zero-cost collars and forward sale contracts, with respect to our common stock at any time. Our insider trading policy does not restrict pledges of securities, but requires that pledges of securities be pre-cleared by an insider trading compliance officer. Any director, officer or employee of ours preparing to pledge his or her Company securities must clearly demonstrate his or her financial capacity to repay the loan without resort to the pledged securities.

EXECUTIVE OFFICERS

As of July 1, 2022, our executive officers and their age and positions are set forth in the following table.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Dietrich Stephan, Ph.D.	52	Chief Executive Officer and Director
Todd Branning	52	Chief Financial Officer and Secretary
William Mann, Ph.D.	61	President and Chief Operating Officer
Sandra Rojas-Caro, M.D.	53	Head of Research & Development and Chief Medical Officer

Dietrich Stephan, Ph.D. For a brief biography of Dr. Stephan, please see the section of this Proxy Statement entitled “Proposal No. 1 — Information Regarding Nominees and Incumbent Directors” above.

Todd Branning, has served as our Chief Financial Officer since January of 2022. Mr. Branning previously served as Chief Financial Officer of Phathom Pharmaceuticals, Inc., a publicly traded late clinical-stage biopharmaceutical company, from July 2020 through June 2021. Before that, Mr. Branning served as Senior Vice President, Chief Financial Officer of Amneal Pharmaceuticals, Inc., a publicly traded pharmaceutical company, from January 2019 through March 2020. Prior to joining Amneal, he was Senior Vice President, Chief Financial Officer of the global generic medicines division at Teva Pharmaceutical Industries Ltd., a multinational generic pharmaceuticals company, from August 2016 to March 2018. Mr. Branning has also held financial leadership roles at Allergan plc, PricewaterhouseCoopers LLP, PPG Industries, Inc. and Merck & Co., Inc. He received his BBA from the University of Miami and MBA from Carnegie Mellon University. Mr. Branning is also a Certified Public Accountant and has completed a CFO certification program at The Wharton School at the University of Pennsylvania.

William Mann, Ph.D., has served as our Chief Operating Officer since July 2020 and as our President since June 2022. Dr. Mann has more than 25 years of experience in the biopharma industry. Most recently, he served as the President, CEO, and Board member of Helsinn Therapeutics U.S., where he transformed the development-focused company into a profitable commercial entity with a portfolio that included Aloxi®, Akynzeo®, Halaven®, and Zykadia®. Prior to Helsinn, he was Vice President of Corporate Development at Sapphire Therapeutics, where he led several business development transactions, including the licensing of anamorelin to Ono Pharmaceutical Co, Ltd and played a key role in the sale of the company to Helsinn Healthcare SA. Also in this role, Dr. Mann managed the international Phase 2B study of anamorelin, which is now approved in Japan as Adlumiz® for the treatment of cancer cachexia. Bill began his professional career at Novartis, where he led a multidisciplinary drug discovery program and later served as Director of Business Development. He received bachelor and doctorate degrees in biochemistry from the University of Aberdeen, Scotland, completed postdoctoral studies at The Rockefeller University, and obtained an MBA from Rutgers University.

Sandra Rojas-Caro, M.D., has served as our Chief Medical Officer since May 2021 and as our Head of Research & Development since April 2022. She has broad R&D leadership, executive management and team-building experience in private and public biotech companies and large pharma. She has been directly involved in successful global regulatory submissions, including an FDA and EMA approval and more than 10 investigational new drug (IND) applications. Most recently, Dr. Rojas-Caro was Chief Medical Officer for Gemini Therapeutics, a company focused on redefining age-related macular degeneration (AMD) and linked disorders with precision medicine, from February 2018 to January 2020. At Gemini, she led development through several milestones, including the company’s first IND and the first cohorts of genetically selected patients dosed with the company’s leading biologic therapeutic. She has also recently been involved in a consulting practice focused on early and growth stage biotechnology companies with a focus on rare disease therapeutics and precision therapeutics. Prior to Gemini, Dr. Rojas-Caro served as Chief Medical Officer for Aeglea BioTherapeutics (Nasdaq: AGLE), a biotechnology company developing a new generation of enzyme-based therapeutics to treat inborn errors of metabolism (IEM), from May 2016 to October 2016. Prior to Aeglea, she served as Group Vice President of Clinical Research and Development at Synageva BioPharma where she was instrumental in leading the clinical development team that secured the FDA and EMA approval of Kanuma® (sebelipase alfa) for the treatment of lysosomal acid lipase deficiency, as well as advancing the clinical development of other IEM programs. Following the acquisition of

Synageva by Alexion, Dr. Rojas-Caro served as Vice President and R&D Project Team Leader for the Metabolic Rare Diseases Unit, and she supported the post-merger integration. Earlier in her career, she held roles in clinical and translational research with increasing levels of responsibility at Roche, Array BioPharma and Pfizer, where she was responsible for the design and implementation of early development clinical strategy across a broad range of indications. Dr. Rojas-Caro received a Bachelor's in Science of Medicine and an M.D. from Pontifical Catholic University of Chile.

Family Relationships

There are no family relationships between any of our executive officers or directors.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth the compensation paid by us during the years ended September 30, 2021 and 2020 to (1) our principal executive officer during the fiscal year ended September 30, 2021 and (2) our two most highly compensated executive officers (other than our principal executive officer) who were serving as executive officers as of September 30, 2021 (collectively our “Named Executive Officers”):

Name and Position(s)	Year	Salary	Bonus ⁽¹⁾	Option Awards ⁽²⁾	Non-Equity Incentive Plan Compensation	All Other Compensation ⁽³⁾	Total
Dietrich Stephan, Ph.D., Chief Executive Officer	2021	\$469,149	\$196,875	\$799,886	\$ —	\$ 47,808	\$1,513,717
	2020	\$441,346	\$ —	\$ —	\$ —	\$ 47,475	\$ 488,821
Sam Backenroth, Former Chief Financial Officer	2021	\$363,462	\$140,000	\$639,023	\$ —	\$ 23,330	\$1,165,814
	2020	\$320,000	\$ 20,000	\$ —	\$ —	\$ 18,524	\$ 358,524
William Mann, Ph.D., Chief Operating Officer ⁽⁴⁾	2021	\$381,923	\$ 62,500	\$ 61,750	\$ —	\$ 25,975	\$ 532,149
	2020	\$ 57,692	\$ 45,000	\$917,000	\$ —	\$ 3,663	\$1,023,355

- (1) In the fiscal year ended September 30, 2021, the Company awarded a cash bonus to Dr. Stephan and Mr. Backenroth in the amount of \$196,875 and \$140,000, respectively, for services rendered during the calendar year ended December 31, 2020, which were not committed during such fiscal year and were approved by the Compensation Committee of the Board during May 2021. In the fiscal year ended September 30, 2020, the Company awarded a cash bonus to Dr. Stephan and Mr. Backenroth in the amount of \$157,500 and \$132,000, respectively, for services rendered during the fiscal year ended September 30, 2019, which were not committed during such fiscal year and were approved by the Compensation Committee of the Board during May 2020. The Company paid Dr. Stephan and Mr. Backenroth such cash bonuses on May 15, 2020. In October 2020, the Compensation Committee approved a bonus for Mr. Backenroth in the amount of \$20,000 in relation to services rendered to the Company during the fiscal year ended September 30, 2020 because of his election to take a reduction of his base salary during such fiscal year. Pursuant to each offer letter between the Company and between Dr. Stephan and Mr. Backenroth, each of Dr. Stephan and Mr. Backenroth will be eligible for a discretionary bonus for service with the Company during fiscal 2020 equal to 35% of each of their base salaries, each as determined at the discretion of the Compensation Committee. Dr. Mann is eligible for an annual performance bonus with a target amount equal to 40% of his base salary, provided that he remains employed by the Company on the date that such bonus would be paid. In addition, we paid Dr. Mann a relocation bonus of \$45,000 with respect to his relocation to our principal office in Pittsburgh, PA during fiscal 2020.
- (2) The amounts in this column reflect the aggregate grant date fair value of equity awards granted during the applicable fiscal year, calculated in accordance with FASB ASC Topic 718 and using a Black-Scholes valuation model. Assumptions used in the calculation of these amounts are included in Note 13 of the audited financial statements included in our 2021 Annual Report.
- (3) Consists of other compensation amounts for each named executive officer listed in the table entitled “All Other Compensation” below, including our contributions to such officers’ 401(k), group term life insurance policy premiums, health benefits and paid time off buy back.
- (4) Mr. Mann was appointed President of the Company in June 2022.

All Other Compensation

Name	Year	401(k) Company	Group Term	Health Benefits	Life Insurance	Paid Time Off Buy Back	Total Other Compensation
Dietrich Stephan, Ph.D. Chief Executive Officer	2021	—	\$ —	\$ 25,716	\$ 22,092	—	\$ 47,808
	2020	—	\$ —	\$ 21,761	25,714	—	\$ 47,475
Sam Backenroth Former Chief Financial Officer	2021	1,283	\$ 420	\$ 21,627	—	—	\$ 23,330
	2020	—	\$ —	\$ 18,524	—	—	\$ 18,524
William Mann, Ph.D. Chief Operating Officer	2021	—	\$ 454	\$ 25,522	—	—	\$ 25,976
	2020	—	\$ —	3,663	—	—	\$ 3,663

Narrative Disclosure to Summary Compensation Table**Base Salary**

In general, base salaries for our Named Executive Officers are approved by the compensation committee of our Board (the “Compensation Committee”) and are initially established through arm’s length negotiation at the time the executive is hired, taking into account such executive’s qualifications, experience, prior salary and market pay levels. Base salaries of our Named Executive Officers are approved and reviewed annually by our Compensation Committee and adjustments to base salaries are based on the scope of an executive’s responsibilities, individual contribution, prior experience and sustained performance. Decisions regarding salary increases may take into account an executive officer’s current salary, equity ownership, and the amounts paid to an executive officer’s peers inside our company by conducting an internal analysis, which compares the pay of an executive officer to other members of the management team. Base salaries are also reviewed in the case of promotions or other significant changes in responsibility. Base salaries are not automatically increased if the Compensation Committee believes that other elements of the Named Executive Officer’s compensation are more appropriate in light of our stated objectives. This strategy is consistent with our intent of offering compensation that is both cost-effective, competitive and contingent on the achievement of performance objectives.

With the exception of the increase of Dr. Mann’s annual salary to \$420,000 in July 2021, our Named Executive Officers did not receive base salary increases in fiscal 2021 or 2020.

Equity Compensation

The Compensation Committee considers equity incentives to be important in aligning the interests of our executive officers with those of our stockholders. As part of our pay-for-performance philosophy, our compensation program tends to emphasize the long-term equity award component of total compensation packages paid to our executive officers.

Because vesting is based on continued employment, our equity-based incentives also encourage the retention of our Named Executive Officers through the vesting period of the awards. In determining the size of the long-term equity incentives to be awarded to our Named Executive Officers, we take into account a number of internal factors, such as the relative job scope, the value of existing long-term incentive awards, individual performance history, prior contributions to us and the size of prior grants. Based upon these factors, the Compensation Committee determines the size of the long-term equity incentives at levels it considers appropriate to create a meaningful opportunity for reward predicated on the creation of long-term stockholder value.

To reward and retain our Named Executive Officers in a manner that best aligns employees’ interests with stockholders’ interests, we use stock options and restricted stock unit awards as the primary incentive vehicles for long-term compensation. We believe that stock options and restricted stock unit awards are effective tools for meeting our compensation goal of increasing long-term stockholder value by tying the value of the stock to our future performance. Because employees are able to profit from stock options only if our stock price increases relative to the stock option’s exercise price, we believe stock options provide meaningful incentives to employees to achieve increases in the value of our stock over time.

We use stock options, and may also use and restricted stock unit awards, to compensate our Named Executive Officers both in the form of initial grants in connection with the commencement of employment and annual refresher grants. While we intend that the majority of equity awards to our employees be made pursuant to initial grants or our annual grant program, the Compensation Committee retains discretion to grant equity awards to employees at other times, including in connection with the promotion of an employee, to reward an employee, for retention purposes or for other circumstances recommended by management or the Compensation Committee.

The exercise price of each stock option grant is the fair market value of our common stock on the grant date. Time-based stock option awards granted to Dr. Stephan provided for vesting over a four-year period in equal monthly installments over 48 months. Dr. Stephan's time-based stock option awards vested immediately and became exercisable upon the consummation of the Merger. Time-based stock option awards to Mr. Backenroth and Dr. Mann provided for vesting over a four-year period as follows: 25% of the shares underlying the options vest on the first anniversary of the date of the respective vesting commencement dates and the remainder of the shares underlying the options vest in equal monthly installments over the respective remaining 36 months thereafter. From time to time, our Compensation Committee may, however, determine that a different vesting schedule is appropriate. We do not have any stock ownership requirements for our Named Executive Officers.

Compensation Consultant

Our Compensation Committee has the authority to retain the services and obtain the advice of external advisors, including compensation consultants, legal counsel and other advisors to assist in the evaluation of executive officer compensation. In 2021, our Compensation Committee engaged Compensia, an independent executive compensation consulting firm, to review our executive compensation policies and practices and to conduct an executive compensation market analysis.

During fiscal 2021, Compensia reviewed and advised on principal aspects of our executive compensation program, including:

- Assisting in developing a peer group of publicly traded companies to be used to help assess executive compensation;
- Assisting in developing a competitive compensation strategy and consistent executive compensation assessment practices relevant to a public company, including review and recommendation of the annual performance-based cash incentive program as well as the equity strategy for the Company covering dilution, grant levels and type of equity; and
- Meeting with the Compensation Committee to review elements of executive compensation including the competitiveness of the executive compensation program.

Our Compensation Committee has assessed the independence of Compensia consistent with the Nasdaq Stock Market listing requirements and has concluded that the engagement of Compensia does not raise any conflicts of interest.

Outstanding Equity Awards as of September 30, 2021

The following table shows information regarding our outstanding equity awards as of September 30, 2021 for the Named Executive Officers:

Name	Option Awards					Stock Awards			
	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Non-Exercisable (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price (\$)	Option Expiration Date ⁽¹⁾	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
Dietrich Stephan, Ph.D.	3,311,930	—	—	\$ 0.001	12/31/2028	—	—	—	\$ —
Sam Backenroth	772,923 ⁽²⁾	—	—	\$ 5.39	7/12/2029	—	—	—	—
	17,500 ⁽³⁾	—	—	\$ 13.40	3/31/2024	—	—	—	—
William Mann, Ph.D.	51,041	123,959 ⁽⁴⁾	—	\$ 7.46	7/27/2030	—	—	—	—
		25,000 ⁽⁵⁾	—	\$ 3.46	8/19/2031	—	—	—	—

- (1) The options have a term of 10 years from the date of issuance.
- (2) Pursuant to the Separation Agreement entered into by Mr. Backenroth and the Company, dated September 30, 2021, all 772,923 shares of Company stock subject to this stock option have vested.
- (3) The option vested over a three-year period, with one-third of the shares underlying the option vesting on each of October 16, 2017, October 16, 2018 and October 16, 2019; provided that the last one-third vested in full in connection with the closing of the Merger on July 12, 2019.
- (4) The stock option vests over four years from the date of grant of July 27, 2020, with 25% of the shares subject to the options vesting on the first anniversary of the date of grant and the remainder vesting in 36 monthly tranches thereafter.
- (5) The stock option vests over four years from the date of grant of August 19, 2021, with 25% of the shares subject to the options vesting on the first anniversary of the date of grant and the remainder vesting in 36 monthly tranches thereafter.

Payments upon Termination or Change in Control

We have entered into employment agreements with each of our Named Executive Officers. These agreements set forth the individual's base salary, annual incentive opportunities, equity compensation and other employee benefits, which are described in this Executive Compensation section. All employment agreements provide for "at-will" employment, meaning that either party can terminate the employment relationship at any time, although our agreements with our Named Executive Officers provide that they would be eligible for severance benefits in certain circumstances following a termination of employment without cause. Our Compensation Committee approved the severance benefits to mitigate certain risks associated with working in a biopharmaceutical company at our current stage of development and to help attract and retain qualified executives.

Dietrich Stephan, Ph.D.

Historically, Legacy NeuBase had one executive officer, Dietrich Stephan, Ph.D., President and Chief Executive Officer. Upon the formation of Legacy NeuBase and until the date that Legacy NeuBase and Dr. Stephan entered into an employment agreement, in recognition of our low levels of operating cash flow and Dr. Stephan's status as a stockholder of Legacy NeuBase, he forewent any cash compensation for his service as an executive officer.

Legacy NeuBase entered into an employment agreement as of December 22, 2018 with Dr. Stephan as its Chief Executive Officer, effective as of August 28, 2018 (the “Stephan Employment Agreement”). Beginning on December 22, 2018, Dr. Stephan’s annual base salary was \$75,000. If Legacy NeuBase issued and sold shares of its preferred or common stock in one or a series of transactions for aggregate proceeds of at least \$4,000,000 (excluding all proceeds realized from the conversion or cancellation of debt in exchange for the issuance of such stock) (“Qualified Financing”), Dr. Stephan’s annual base salary would be increased to \$450,000, and Legacy NeuBase would pay Dr. Stephan an additional \$2,000 per month for his supplemental life and disability insurance policies. Dr. Stephan’s annual base salary is subject to increase or decrease by Legacy NeuBase’s board of directors or a committee duly appointed by the board.

On or about December 28, 2018, Legacy NeuBase paid Dr. Stephan a bonus of \$25,000. Upon the consummation of a Qualified Financing, Dr. Stephan would be eligible for a bonus of \$150,000 (the “Bonus”), which may be modified from time to time in the discretion of Legacy NeuBase’s board of directors, and would additionally be eligible for an annual bonus of \$150,000 (“Annual Bonus”) based on the attainment of individual and Legacy NeuBase performance objectives as may be set by Legacy NeuBase’s board of directors.

Under the Stephan Employment Agreement, on December 31, 2018, Dr. Stephan was also granted a stock option to purchase 3,250,000 shares of Legacy NeuBase common stock with an exercise price of \$0.001 per share. Beginning on August 28, 2018, this stock option began to vest on an equal monthly basis over a 48-month period, subject to Dr. Stephan’s continued employment with Legacy NeuBase. Upon completion of the Merger, however, this stock option vested in full, and Dr. Stephan was entitled to exercise his option to purchase 3,311,930 of the combined company’s stock at an exercise price adjusted for the exchange ratio pursuant to the Merger Agreement.

Dr. Stephan’s employment with Legacy NeuBase was at-will, meaning either Legacy NeuBase or Dr. Stephan could terminate the employment relationship at any time, with or without cause. If Legacy NeuBase terminated Dr. Stephan’s employment without “cause” and not on account of his “disability” or Dr. Stephan resigns his employment for “good reason” (as such terms are defined in the Stephan Employment Agreement), then, so long as Dr. Stephan complies with certain obligations, including execution and delivery of a general release within a specified period of time, Legacy NeuBase would pay Dr. Stephan: (1) his base salary as of the termination date for 12 months following the termination date; and (2) subject to the discretion of Legacy NeuBase’s board of directors, a pro-rata Bonus or Annual Bonus for the year in which the termination occurs, calculated based on the product of the Dr. Stephan’s target Bonus or Annual Bonus times a fraction, the numerator of which is the number of days during the year of termination in which Dr. Stephan was employed and the denominator of which is 365. In addition, 100% of the unvested shares subject to his stock option vest.

Dr. Stephan was also a party to a confidential information, invention assignment and arbitration agreement with Legacy NeuBase, pursuant to which Dr. Stephan has made confidentiality, assignment of intellectual property, nonsolicitation and noncompetition covenants in favor of Legacy NeuBase. Any severance payments that become payable under his employment agreement are conditioned on his compliance with these covenants.

On July 11, 2019, we entered into an Offer of Employment with Dr. Stephan (the “Offer of Employment”) that became effective upon the consummation of the Merger on July 12, 2019 and replaced the Stephan Employment Agreement. Pursuant to the Offer of Employment, Dr. Stephan will serve as the Company’s President and Chief Executive Officer, his initial annualized salary will be \$450,000 and he will be eligible to receive a discretionary annual performance bonus of up to 35% of his base salary. In addition, consistent with the obligations of Legacy NeuBase under the Stephan Employment Agreement, we paid Dr. Stephan the Bonus on July 19, 2019 pursuant to the completion of the Merger consummated on July 12, 2019.

Dr. Stephan’s current annual base salary is \$540,000, and he will be eligible to receive a discretionary annual performance bonus of up to 50% of his base salary. On May 15, 2020, the Company awarded a cash bonus to Dr. Stephan in the amount of \$157,500 for the fiscal year ended September 30, 2019, and on May 12, 2021, the Company awarded a cash bonus to Dr. Stephan in the amount of \$196,500 for services performed during the period beginning October 1, 2019 and concluding on December 31, 2020. The bonuses

were approved by the Compensation Committee of the Board during May 2020 and May 2021, respectively, and the Company paid Dr. Stephan such cash bonuses on May 15, 2020 and May 14, 2021, respectively.

Dr. Stephan's employment with us is at-will, meaning either us or Dr. Stephan could terminate the employment relationship at any time, with or without cause. Pursuant to the Offer of Employment, if Dr. Stephan is terminated by us without cause, we will be obligated to pay to Dr. Stephan (i) severance at a rate equal to 100% of his base salary for a period of 12 months from the date of such termination and (ii) subject to the discretion of our Board, a prorated discretionary bonus for the year in which such termination occurs.

In addition, pursuant to the Offer of Employment, Dr. Stephan's confidential information, invention assignment and arbitration agreement with Legacy NeuBase shall continue to apply and was assumed by us.

Todd Branning

On January 10, 2022, the Company entered into an offer letter with Mr. Branning. Pursuant to his offer letter, Mr. Branning's initial annual salary was \$425,000, and he has an annual performance bonus with a target of 40% of his base salary. Additionally, in connection with the commencement of his employment, the Company granted Mr. Branning an option to purchase 300,000 shares of the Company's common stock under the Company's 2019 Stock Incentive Plan. Subject to Mr. Branning's continued employment with the Company, 1/4th of the shares underlying his option to purchase common stock will vest on the first anniversary of Mr. Branning's start date, and 1/36th of the remaining shares underlying such option will vest at the end of each calendar month thereafter.

Mr. Branning's employment with us is at-will, meaning either we or Mr. Branning could terminate the employment relationship at any time, with or without cause. If Mr. Branning is terminated by the Company without cause or Mr. Branning resigns for good reason (defined generally as a reduction in his salary amongst similarly-situated employees, relocation, or a material diminution in title, duties or responsibilities), in either case, during the period commencing three months prior to, and ending twelve months following, a change in control (as defined in the 2019 Plan), then, subject to the execution and delivery of a general release of all claims, his then outstanding, unvested options, if any, will vest and be exercisable as to all of the covered shares. If Mr. Branning is terminated by the Company without cause or if Mr. Branning terminates his employment for good reason (whether or not in connection with a change in control), the Company will be obligated to pay Mr. Branning (1) severance pay at a rate equal to 100% of his base salary for a period of twelve months from the date of termination, (2) reimbursement of twelve months of health benefits (COBRA subsidization) in accordance with the Company's standard expense reimbursement procedures, (3) any annual bonus earned, but not yet paid, for a prior year, and (4) subject to the good faith determination of the Board, a prorated portion of his annual bonus target for the year of termination, and the portion of any unvested stock awards held by Mr. Branning that would be scheduled to vest during the 12-month period following his termination of employment would immediately vest.

Mr. Branning also entered into the Company's standard indemnification agreement and standard confidentiality and invention assignment agreement with the Company.

William Mann, Ph.D.

On July 22, 2020, the Company entered into an offer letter with Dr. Mann. Pursuant to his offer letter, Dr. Mann's initial annual salary was \$375,000, and he had an annual performance bonus with a target of 40% of his base salary. Additionally, the Company granted Dr. Mann an option to purchase 175,000 shares of the Company's common stock under the Company's 2019 Stock Incentive Plan. Subject to Dr. Mann's continued employment with the Company, 1/4th of the shares underlying his option to purchase common stock will vest on the first anniversary of Dr. Mann's start date, and 1/36th of the remaining shares underlying such option will vest at the end of each calendar month thereafter.

On May 12, 2021, the Company awarded a cash bonus to Dr. Mann in the amount of \$62,500 for services performed during the period beginning on his hire date in July 2020 and concluding on December 31, 2020 and was approved by the Compensation Committee of the Board in May 2021. We paid Dr. Mann such bonus on May 14, 2021.

Dr. Mann's employment with us is at-will, meaning either we or Dr. Mann could terminate the employment relationship at any time, with or without cause. If Dr. Mann is terminated by us without cause or Dr. Mann resigns for good reason (defined generally as a reduction in his salary amongst similarly-situated employees, relocation, or a material diminution in title, duties or responsibilities), in either case, within six months following a change in control (as defined in the 2019 Plan), then, subject to execution and delivery of a general release of all claims, his then outstanding, unvested options, if any, will vest and be exercisable as to all of the covered shares. If Dr. Mann is terminated by us without cause (whether or not in connection with a change in control), we will be obligated to pay Dr. Mann (1) severance pay at a rate equal to one hundred percent (100%) of his base salary for a period of twelve (12) months from the date of termination, (2) reimbursement of 12 months of health benefits (COBRA subsidization) in accordance with the Company's standard expense reimbursement procedures and (3) subject to the discretion of our board of directors, a prorated portion of his annual bonus target for the year of termination.

Dr. Mann also entered into the Company's standard indemnification agreement and standard confidentiality and invention assignment agreement with the Company.

Deductibility of Executive Compensation

Generally, Section 162(m) of the Code ("Section 162(m)") disallows public companies a tax deduction for federal income tax purposes of compensation in excess of \$1 million paid to their chief executive officer, the chief financial officer and three other most highly-compensated executive officers in any taxable year. In making compensation decisions, the Compensation Committee considered the potential effects of Section 162(m) on the compensation paid our executive officers who are subject to the deduction limit (the "covered executives"). The exemption from Section 162(m)'s deduction limit for performance-based compensation was generally repealed for taxable years beginning after December 31, 2017, such that compensation paid to our covered officers in excess of \$1 million will generally not be deductible unless it qualifies for transition relief applicable to certain arrangements in place as of November 2, 2017.

To maintain flexibility in compensating the named executive officers in a manner designed to promote varying corporate goals, the Compensation Committee has not adopted a policy that all compensation payable to the covered executives must be deductible for federal income tax purposes. Accordingly, the Compensation Committee may, in its judgment, approve compensation for our executive officers that does not comply with an exemption from the deduction limit when it believes that such compensation is in the best interests of the Company and our stockholders.

The Compensation Committee believes that stockholder interests are best served by not restricting the Compensation Committee's discretion and flexibility in structuring compensation programs, even though such programs may result in non-deductible compensation expenses.

DIRECTOR COMPENSATION

Cash Compensation of Directors

Under the amended Outside Director Compensation Policy, Outside Directors will be entitled to a cash retainer of \$35,000 for their service on the Board (exclusive of any participation on its Committees). Outside Directors serving on any of the Board's Audit, Compensation and Nominating & Corporate Governance Committees in a non-Chairperson capacity will be entitled to a cash retainer of \$7,500, \$5,000 and \$4,000, respectively, for services on such Committees, and the Chairpersons of such Committees will be entitled to such amounts for their service as members of such Committees and \$15,000, \$10,000 and \$8,000, respectively, for services as Chairpersons of such Committees. The Outside Director Compensation Policy does not provide for any per meeting attendance fees for any meeting of the Board or its Committees.

Equity Grants to Directors

Furthermore, the amended Outside Director Compensation Policy provides that Outside Directors will be eligible to receive all types of awards (except incentive stock options) under the Company's 2019 Stock Incentive Plan, as amended (the "Plan") (or the applicable equity plan in place at the time of grant), including discretionary awards not covered under the Outside Director Compensation Policy.

Subject to limitations on individual grants to Outside Directors under the Plan, upon an Outside Director's appointment to the Board, such Outside Director automatically will be granted a nonstatutory stock option to purchase shares of the Company's common stock having a grant date fair value of \$320,000 (the "NSO Appointment Award"). Subject to further adjustment provisions as described in the Outside Director Compensation Policy and the Plan, 25% of each NSO Appointment Award will vest on the one-year anniversary of the grant date, and the remaining portion of the NSO Appointment Award will vest on an equal monthly basis over the following 36 months, provided that the Outside Director is in continuous service with the Company or an affiliate of the Company through the applicable vesting date. Each NSO Appointment Award will vest fully upon a Change in Control (as defined in the Plan), in each case, provided that the Outside Director is in continuous service with the Company or an affiliate of the Company through the Change in Control.

In addition, subject to limitations on individual grants to Outside Directors under the Plan, on the first business day after each annual meeting of the Company's stockholders beginning with the 2021 annual meeting, each Outside Director automatically will be granted a nonstatutory stock option to purchase shares of the Company's common stock having a grant date fair value of \$90,000 (the "Annual NSO Award"); provided that the initial Annual NSO Award granted on or after the Outside Director Compensation Policy's effective date was made on September 9, 2020. Each of our Outside Directors (other than Eric Ende) was thus granted a stock option to purchase 38,135 shares of the Company's common stock with an exercise price of \$3.36 on August 19, 2021. On January 1, 2022, the Board appointed Dr. Eric Ende as a director of the Company, and in connection therewith and in accordance with the Outside Director Compensation Policy, Dr. Ende was granted a stock option to purchase 165,803 shares of the Company's common stock at an exercise price equal to the fair market value of the Company's common stock on the date of grant. 25% of his option will vest on the one-year anniversary of the grant date, and the remaining portion of his option will vest on an equal monthly basis over the following 36 months. Subject to further adjustment provisions as described in the Outside Director Compensation Policy and the Plan, 25% of each Annual NSO Award will vest on the one-year anniversary of the grant date, and the remaining portion of the Annual NSO Award will vest on an equal monthly basis over the following 36 months, provided that the Outside Director is in continuous service with the Company or an affiliate of the Company through the applicable vesting date. Each Annual NSO Award will vest fully upon a Change in Control (as defined in the Plan), in each case, provided that the Outside Director is in continuous service with the Company or an affiliate of the Company through the Change in Control.

With regard to any of the nonstatutory stock options granted under the Outside Director Compensation Policy described above, the per share exercise price for all such options will be 100% of the fair market value of the shares underlying the options on the grant date.

Non-Employee Director Compensation for Fiscal 2021

Below is a summary of the non-employee director compensation paid in the fiscal year ended September 30, 2021. Mr. Ende was appointed to our Board in January 2022 and therefore did not receive any compensation from us in the fiscal year ended September 30 2021.

Name	Cash Compensation ⁽¹⁾	Option Grants ⁽²⁾	Stock Awards ⁽³⁾	Total
Dov A. Goldstein, M.D.	\$ 55,000	\$ 90,380	\$ —	\$145,380
Diego Miralles, M.D. ⁽⁴⁾	\$ 23,803	\$ —	\$ —	\$ 23,803
Franklyn G. Prendergast, M.D., Ph.D.	\$ 52,500	\$ 90,380	\$ —	\$142,880
Eric I. Richman	\$ 45,590	\$ 90,380	\$ —	\$135,970
Gerry J. McDougall ⁽⁵⁾	\$ 16,997	\$ 90,380	\$ —	\$107,377

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- (1) Represents the value of the annual retainers payable to our non-employee directors during fiscal 2021.
- (2) Pursuant to the Company's Outside Director Compensation Policy, the Company granted each of our Outside Directors serving as of our 2021 annual meeting of stockholders a stock option to purchase 38,135 shares of common stock with an exercise price of \$3.36 on August 19, 2021. With respect to each Outside Director (as applicable), the option to purchase 227,330 shares of common stock that was granted upon the consummation of the Merger, the stock option to purchase 14,634 shares of common stock that was granted to each Outside Director on September 9, 2020, and the stock option to purchase 38,135 shares of common stock that was granted to each Outside Director on August 19, 2021, remained outstanding as of September 30, 2021.
- (3) We did not grant any stock awards to our directors in fiscal 2021.
- (4) Mr. Miralles resigned from our Board of Directors on March 31, 2021.
- (5) Mr. McDougall was appointed to our Board of Directors on May 11, 2021.

REPORT OF THE AUDIT COMMITTEE

The Audit Committee oversees the Company's financial reporting process on behalf of our Board of Directors. Management has the primary responsibility for the financial statements and the reporting process, including the system of internal controls. In fulfilling its oversight responsibilities, the Audit Committee reviewed and discussed the audited consolidated financial statements in the Company's annual report with management, including a discussion of any significant changes in the selection or application of accounting principles, the reasonableness of significant judgments, the clarity of disclosures in the financial statements and the effect of any new accounting initiatives.

The Audit Committee reviewed with its independent registered public accounting firm, which is responsible for expressing an opinion on the conformity of the Company's audited consolidated financial statements with generally accepted accounting principles, its judgments as to the quality, not just the acceptability, of the Company's accounting principles and such other matters as are required to be discussed with the Audit Committee under generally accepted auditing standards and by the applicable requirements of the Public Company Accounting Oversight Board and the SEC. In addition, the Audit Committee has discussed with its independent registered public accounting firm, the firm's independence from management and the Company, has received from its independent registered public accounting firm the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence, and has considered the compatibility of non-audit services with the auditors' independence.

The Audit Committee met with the Company's independent registered public accounting firm to discuss the overall scope of its services, the results of its audit and reviews, and the overall quality of the Company's financial reporting. The Company's independent registered public accounting firm also periodically updates the Audit Committee about new accounting developments and their potential impact on the Company's reporting. The Audit Committee's meetings with the Company's independent registered public accounting firm were held with and without management present. The Audit Committee is not employed by the Company, nor does it provide any expert assurance or professional certification regarding the Company's financial statements. The Audit Committee relies, without independent verification, on the accuracy and integrity of the information provided, and representations made, by management and the Company's independent registered public accounting firm.

In reliance on the reviews and discussions referred to above, the Audit Committee has recommended to the Company's Board of Directors that the audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended September 30, 2021. The Audit Committee and the Company's Board of Directors also have recommended, subject to stockholder approval, the ratification of the appointment of Marcum LLP as the Company's independent registered public accounting firm for the fiscal year ending September 30, 2022.

This report of the Audit Committee is not "soliciting material," shall not be deemed "filed" with the SEC and shall not be incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing, except to the extent that we specifically incorporate this information by reference, and shall not otherwise be deemed filed under such acts.

The foregoing report has been furnished by the Audit Committee.

Submitted by the Audit Committee of the Board of Directors

Dov Goldstein, M.D., M.B.A. (Chair)

Franklyn Prendergast, M.D., Ph.D.

Eric Richman, M.B.A.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Review and Approval of Transactions with Related Persons

Described below are any transactions occurring since October 1, 2019 and any currently proposed transactions to which we were a party and in which:

- the amounts involved exceeded or will exceed \$120,000; and
- a director, executive officer, holder of more than 5% of the outstanding capital stock of the Company, or any member of such person's immediate family had or will have a direct or indirect material interest.

Our Board has adopted a written related policy with respect to related person transactions. This policy governs the review, approval or ratification of covered related person transactions. The Audit Committee of the Board (the "Audit Committee") manages this policy.

For purposes of this policy, a "related person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we (or any of our subsidiaries) were, are or will be a participant, and the amount involved exceeds \$120,000 and in which any related person had, has or will have a direct or indirect interest. For purposes of determining whether a transaction is a related person transaction, the Audit Committee relies upon Item 404 of Regulation S-K, promulgated under the Exchange Act.

A "related person" is defined as:

- any person who is, or at any time since the beginning of our last fiscal year was, one of our directors or executive officers or a nominee to become one of our directors;
- any person who is known to be the beneficial owner of more than five percent of any class of our voting securities;
- any immediate family member of any of the foregoing persons, which means any child, stepchild, parent, stepparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law of the director, executive officer, nominee or more than five percent beneficial owner, and any person (other than a tenant or employee) sharing the household of such director, executive officer, nominee or more than five percent beneficial owner; or
- any firm, corporation, or other entity in which any of the foregoing persons is employed or is a general partner or principal or in a similar position or in which such person has a ten percent or greater beneficial ownership interest.

The policy generally provides that we may enter into a related person transaction only if:

- the Audit Committee pre-approves such transaction in accordance with the guidelines set forth in the policy;
- the transaction is on terms comparable to those that could be obtained in arm's length dealings with an unrelated third party and the Audit Committee (or the chairperson of the Audit Committee) approves or ratifies such transaction in accordance with the guideline set forth in the policy;
- the transaction is approved by the disinterested members of our Board; or
- the transaction involves compensation approved by our Compensation Committee.

In the event a related person transaction is not pre-approved by the Audit Committee and our management determines to recommend such related person transaction to the Audit Committee, such transaction must be reviewed by the Audit Committee. After review, the Audit Committee will approve or disapprove such transaction. When our Chief Financial Officer in consultation with our Chief Executive Officer, determines that it is not practicable or desirable for us to wait until the next Audit Committee meeting, the chairperson of the Audit Committee possesses delegated authority to act on behalf of the Audit Committee. The Audit Committee (or the chairperson of the Audit Committee) may approve only those

related person transactions that are in, or not inconsistent with, our best interests and the best interests of our stockholders, as the Audit Committee (or the chairperson of the Audit Committee) determines in good faith.

Our Audit Committee has determined that certain types of related person transactions are deemed to be pre-approved by our Audit Committee. Our related person transaction policy provides that the following transactions, even if the amount exceeds \$120,000 in the aggregate, are considered to be pre-approved by our Audit Committee:

- any employment of certain named executive officers that would be publicly disclosed;
- director compensation that would be publicly disclosed;
- transactions with other companies where the related person's only relationship is as a director or owner of less than ten percent of said company (other than a general partnership), if the aggregate amount involved does not exceed the greater of \$200,000 or five percent of that company's consolidated gross revenues;
- transactions where all stockholders receive proportional benefits;
- transactions involving competitive bids;
- transactions with a related person involving the rendering of services at rates or charges fixed in conformity with law or governmental authority; and
- transactions with a related person involving services as a bank depository of funds, transfer agent, registrar, trustee under a trust indenture or similar services.

In addition, our Audit Committee will review the policy at least annually and recommend amendments to the policy to our Board from time to time.

The policy provides that all related person transactions will be disclosed to our Audit Committee, and all material related person transactions will be disclosed to our Board. Additionally, all related person transactions requiring public disclosure will be disclosed, as applicable, on our various public filings.

Our Audit Committee will review all relevant information available to it about the related person transaction. The policy provides that the Audit Committee may approve or ratify the related person transaction only if our Audit Committee determines that, under all of the circumstances, the transaction is in, or is not inconsistent with, our best interests. The policy provides that our Audit Committee may, in its sole discretion, impose such conditions as it deems appropriate on us or the related person in connection with approval of the related person transaction.

Transactions with Related Persons

Participation in Our Public Offerings

On April 30, 2020, the Company closed an underwritten public offering of 6,037,500 shares of its common stock (inclusive of 787,500 shares that were sold pursuant to the underwriters' full exercise of their option to purchase additional shares of the Company's common stock), at a price to the public of \$6.00 per share. The Company received net proceeds from the offering of approximately \$33.3 million, after deducting the underwriting discounts and commissions and other estimated offering expenses payable by the Company. Entities affiliated with Greenlight Capital, Inc. ("Greenlight Inc.") purchased 525,000 shares of common stock in the public offering at the public offering price of \$6.00 per share. On April 26, 2021, the Company closed an underwritten public offering of 9,200,000 shares of its common stock (including shares of common stock purchased by the underwriters pursuant to the exercise of their option to cover over-allotments) at a price to the public of \$5.00 per share. The Company received gross proceeds of \$46.0 million from the offering before deducting the underwriting discounts and commissions and offering expenses payable by NeuBase. Entities affiliated with Greenlight Capital, Inc. ("Greenlight Inc.") purchased 700,000 shares of common stock in the public offering at the public offering price of \$5.00 per share. Greenlight Inc. is the investment manager of Greenlight Capital Qualified, L.P., Greenlight Capital, L.P. and Greenlight Capital Offshore Partners and is affiliated with DME Capital Management, LP and DME Advisors, LP,

each of whom are investment advisors to certain of our stockholders. These stockholders form a group representing one of our principal stockholders as set forth under “Security Ownership of Certain Beneficial Owners and Management.”

Indemnification Agreements with Directors and Executive Officers

We have entered into indemnification agreements with our directors and executive officers under which we agreed to indemnify those individuals, under the circumstances and to the extent provided for in the agreements, for expenses, damages, judgments, fines, penalties, settlements and any other amounts they may be required to pay in actions, suits or proceedings which they are or may be made a party or threatened to be made a party by reason of their position as a director, officer or other agent of ours, and otherwise to the fullest extent permitted under Delaware law and our certificate of incorporation and bylaws. We believe that these indemnification agreements are necessary to attract and retain qualified directors, officers and other key employees.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information with respect to the beneficial ownership, as of the Record Date, of common stock by (a) each of our Named Executive Officers and current directors individually, (b) our current directors and executive officers as a group and (c) each holder of more than 5% of the Company's outstanding common stock.

This table is based upon information supplied by officers, directors and principal stockholders and a review of Schedules 13D and 13G, if any, filed with the SEC. Other than as set forth below, we are not aware of any other beneficial owner of more than 5% of the Company's common stock as of the Record Date. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

Beneficial ownership and percentage ownership are determined in accordance with the Rule 13d-3 of the Exchange Act. Under these rules, shares of our common stock issuable under stock options or warrants that are exercisable within 60 days of the Record Date are deemed outstanding for the purpose of computing the percentage ownership of the person holding the options or warrant(s), but are not deemed outstanding for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated and subject to applicable community property laws, to our knowledge, each stockholder named in the following table possesses sole voting and investment power over their shares of our common stock, except for those jointly owned with that person's spouse.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Class (%) ⁽¹⁾
Dietrich Stephan, Ph.D., Director and Chief Executive Officer ⁽²⁾	4,636,743	14.4%
Greenlight Capital, Inc. ⁽³⁾	2,727,027	8.5%
Directors and Named Executive Officers⁽⁴⁾		
Todd Branning, Chief Financial Officer ⁽⁵⁾	30,000	*
William Mann, Ph.D., President and Chief Operating Officer ⁽⁶⁾	108,596	*
Sandra Rojas-Caro, M.D., Head of Research & Development and Chief Medical Officer ⁽⁷⁾	87,500	*
Dov A. Goldstein, M.D., Director ⁽⁸⁾	274,181	*
Gerry J. McDougall, Director ⁽⁹⁾	40,274	*
Franklyn G. Prendergast, M.D., Ph.D., Director ⁽¹⁰⁾	244,181	*
Eric I. Richman, Director ⁽¹¹⁾	289,141	*
Eric Ende, Director	—	—
All current executive officers and directors as a group (nine persons) ⁽¹²⁾	<u>5,710,616</u>	<u>17.7%</u>

* Less than one percent.

- (1) Percentage ownership is calculated based on a total of 32,258,657 shares of our common stock issued and outstanding as of the Record Date.
- (2) Represents (i) 3,269,680 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date, (ii) 1,273,819 shares of our common stock held by family trusts and (iii) 24,525 shares of our common stock held indirectly by Dietrich Stephan, Ph.D.
- (3) Greenlight Capital, Inc. ("Greenlight Inc.") is the investment manager for Greenlight Capital Offshore Partners, Ltd. and as such has voting and dispositive power over 1,271,596 shares of our common stock. DME Capital Management, LP ("DME Management") (i) is the investment manager for Greenlight Capital Offshore Master, Ltd., and as such has voting and dispositive power over 783,631 shares of our common stock held by Greenlight Capital Offshore Master, Ltd. and (ii) manages a portfolio for a private investment fund, and as such has voting and dispositive power over 311,000 shares of our common stock held by such private investment fund. DME Advisors, LP ("DME Advisors") is

the investment manager for Solasglas Investments, LP, and as such has voting and dispositive power over 360,800 shares of our common stock held by Solasglas Investments, LP. DME Advisors GP, LLC (“DME GP”) is the general partner of DME Management and DME Advisors, and as such has voting and dispositive power over 1,455,431 shares of our common stock. David Einhorn is the principal of Greenlight Inc., DME Management and DME GP, and as such has voting and dispositive power over 2,727,027 shares of our common stock held by these affiliates of Greenlight, Inc. Mr. Einhorn disclaims beneficial ownership of these shares of our common stock, except to the extent of any pecuniary interest therein. The address of Greenlight Capital, Inc. is 2 Grand Central Tower, 140 East 45th Street, 24th Floor, New York, NY 10017.

- (4) Unless otherwise indicated, the address for each of our executive officers and directors is c/o 350 Technology Drive, Third Floor, Pittsburgh, PA 15219.
- (5) Represents 30,000 shares of our common stock held directly by Todd Branning.
- (6) Represents (i) 97,396 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date and (ii) 11,200 shares of common stock held directly by William Mann, Ph.D.
- (7) Represents 87,500 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date held directly by Sandra Rojas-Caro, M.D.
- (8) Represents (i) 244,181 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date held directly by Dov A. Goldstein, M.D. and (ii) 30,000 shares of our common stock held directly by Dov A. Goldstein, M.D.
- (9) Represents 40,274 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date held directly by Gerry McDougall.
- (10) Represents 244,181 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date held directly by Franklyn G. Prendergast, M.D., Ph.D.
- (11) Represents (i) 244,181 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date, (ii) 27,747 shares of our common stock held by Eric I. Richman jointly with his spouse and (iii) 17,213 shares of our common stock held directly by Eric I. Richman.
- (12) Comprised of shares included under “Directors and Named Executive Officers,” as well as those of Dr. Stephan, our Chairman and Chief Executive Officer.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act requires our executive officers, directors and persons who beneficially own greater than 10% of a registered class of its equity securities to file certain reports with the SEC with respect to ownership and changes in ownership of the common stock and our other equity securities.

To the Company's knowledge, based solely on our review of the copies of such reports filed with the SEC, our officers, directors and greater than 10% stockholders timely complied with these Section 16(a) filing requirements during the fiscal year ended September 30, 2021 with the exception of the following Form 4 filings:

(i) Dr. Goldstein, Mr. McDougall, Mr. Richman, and Dr. Prendergast on September 17, 2021, and (ii) Mr. Mann on September 24, 2021. The Form 4 filings primarily relate to the grant of stock options as compensation to our officers and directors and were untimely filed. Such late filings did not result in any liability under Section 16(b) of the Exchange Act.

STOCKHOLDER PROPOSALS

Stockholder proposals will be considered for inclusion in the Proxy Statement for the 2023 annual meeting of stockholders (the "2023 Annual Meeting") in accordance with Rule 14a-8 under the Exchange Act, if they are received by the Company's Secretary, on or before March 24, 2023. If the date of the 2023 Annual Meeting changes by more than 30 days from the first anniversary date of the Annual Meeting, then the deadline to submit a stockholder proposal will be a reasonable time before the Company begins to print and send its proxy materials. Upon such an occurrence, the Company will publicly announce the deadline for submitting a stockholder proposal by means of disclosure in a press release or in a document filed with the SEC.

Stockholders who intend to present a proposal or director nominee at the 2023 Annual Meeting without inclusion of such proposal in our proxy materials for the 2023 Annual Meeting are required to provide notice of such proposal within the time periods and in the manner set forth in our Bylaws and the Charter of the Nominating and Corporate Governance Committee, a copy of which is available on our corporate website at <https://ir.neubasetherapeutics.com/corporate-governance/governance-documents>. Proposals of business to be conducted at the 2023 Annual Meeting must be received by the Secretary of the Company at the principal executive offices of the Company not later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the Annual Meeting. However, notwithstanding any adjournment or a postponement of the 2023 Annual Meeting if notice thereof has been given or a public announcement thereof has been made, in the event that the date of the 2022 Annual Meeting is advanced more than 30 days prior to or delayed by more than 30 days after the anniversary of the Annual Meeting, notice by the stockholder to be timely must be so received (A) not earlier than the close of business on the 120th day prior to the 2023 Annual Meeting and (B) not later than the close of business on the later of (y) the 90th day prior to the 2023 Annual Meeting and (z) the 10th day following the day on which public announcement of the date of the 2023 Annual Meeting is first made. 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 and other applicable requirements.

In addition to satisfying the advance notice requirements under our bylaws, to comply with the universal proxy rules under the Exchange Act (once effective), stockholders who intend to solicit proxies in support of director nominees other than the Company's nominees must provide notice to our Corporate Secretary that sets forth the information required by Rule 14a-19 under the Exchange Act no later than July 10, 2023.

Proposals and notices of intention to present proposals at the 2023 Annual Meeting should be addressed to the Secretary of NeuBase Therapeutics, Inc., 350 Technology Drive, Pittsburgh, Pennsylvania 15219.

DELIVERY OF PROXY MATERIALS

In some cases, only one copy of the Notice of Internet Availability of Proxy Materials (the "Notice"), this Proxy Statement or our Annual Report on Form 10-K for the fiscal year ended September 30, 2021 (the "2021 Annual Report") is being delivered to multiple stockholders sharing an address unless we have received contrary instructions from one or more of the stockholders. We will deliver promptly, upon written or oral request, a separate copy of the Notice, this Proxy Statement or the 2021 Annual Report to a

stockholder at a shared address to which a single copy of the document was delivered. Stockholders sharing an address who are receiving multiple copies of notices of internet availability of proxy materials, proxy statements or annual reports may also request delivery of a single copy. To request separate or multiple delivery of these materials now or in the future, a stockholder may submit a written request to Secretary of NeuBase Therapeutics, Inc., 350 Technology Drive, Pittsburgh, Pennsylvania 15219. Please make your request no later than August 21, 2022 to facilitate timely delivery.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed reports, proxy statements and other information with the SEC. The SEC maintains a website that contains the reports, proxy statements and other information we file electronically with the SEC. The address of the SEC website is <http://www.sec.gov>.

You may request, and we will provide at no cost, a copy of these filings, including any exhibits to such filings, by writing or telephoning us at the following address: Secretary of NeuBase Therapeutics, Inc., 350 Technology Drive, Pittsburgh, Pennsylvania 15219. You may also access these filings at our web site under the investor relations link at <https://ir.neubasetherapeutics.com/sec-filings>.

OTHER MATTERS

The Board knows of no other business that will be presented at the Annual Meeting. If any other business is properly brought before the Annual Meeting, it is intended that proxies in the enclosed form will be voted in respect thereof in accordance with the judgment of the persons voting the proxies.

It is important that proxies be returned promptly and that your shares are represented. Stockholders are urged to vote via the Internet (www.proxypush.com/NBSE), by telephone (1-866-206-4393) or by mail by requesting a physical full packet of proxy materials, executing and promptly returning the accompanying proxy card in the envelope enclosed with the packet of proxy materials.

The deadline to vote by telephone is 11:59 P.M., Eastern Time, on Wednesday, September 7, 2022. Unless you register by the registration statement to attend the Annual Meeting virtually, the deadline to vote by Internet is 11:59 P.M., Eastern Time, on Wednesday, September 7, 2022.

To be admitted to the Annual Meeting and vote your shares during the Annual Meeting, you must register to attend the Annual Meeting at www.proxydocs.com/NBSE by the Registration Deadline at 5:00 p.m. Eastern Time on September 7, 2022, and provide the Control Number shown on your Notice that is sent to you, the proxy card if you request physical delivery of proxy materials or the voting instruction form you receive from your brokerage firm, bank or other financial institution if you are not a stockholder of record. After completion of your registration by the Registration Deadline, further instructions, including a unique link to access the Annual Meeting, will be e-mailed to you.

Beneficial Holders who wish to attend the Annual Meeting virtually and vote online during the Annual Meeting must contact their Financial Institution in order to obtain a "legal proxy." If you are a Beneficial Holder and wish to attend the Annual Meeting, follow the instructions from your Financial Institution included with these proxy materials, or contact that organization to request a form of legal proxy. Without a legal proxy, Beneficial Holders cannot vote online during the Annual Meeting.

By Order of the Board of Directors,



Dietrich Stephan, Ph.D.
Chairman, President and Chief Executive Officer
July 22, 2022
Pittsburgh, Pennsylvania

Appendix A

**FORM OF CERTIFICATE OF AMENDMENT TO THE
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
NEUBASE THERAPEUTICS, INC.**

NeuBase Therapeutics, Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"),

DOES HEREBY CERTIFY:

FIRST: The name of the Corporation is NeuBase Therapeutics, Inc.

SECOND: The original Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on May 8, 2014 under the name Ohr Holdco, Inc. The Corporation changed its name to Ohr Pharmaceutical, Inc. on May 30, 2014. The Corporation subsequently changed its name to NeuBase Therapeutics, Inc. on July 12, 2019.

THIRD: That the Board of Directors of the Corporation adopted resolutions setting forth a proposed amendment of the Corporation's Amended and Restated Certificate of Incorporation, declaring said amendment to be advisable and in the best interests of the Corporation and its stockholders and authorizing the appropriate officers of the Corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment is as follows:

RESOLVED, that Section 1 of Article IV (Capital Stock) of the Amended and Restated Certificate of Incorporation of the Corporation be amended and restated as follows:

"Section 1. This Corporation is authorized to issue two classes of capital stock which shall be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares that the Corporation is authorized to issue is 260,000,000, of which 250,000,000 shares shall be Common Stock and 10,000,000 shares shall be Preferred Stock. The Common Stock shall have a par value of \$0.0001 per share and the Preferred Stock shall have a par value of \$0.0001 per share. Subject to the rights of the holders of any series of Preferred Stock, the number of authorized shares of any of the Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority in voting power of the stock of the Corporation with the power to vote thereon irrespective of the provisions of Section 242(b)(2) of the DGCL or any successor provision thereof, and no vote of the holders of any of the Common Stock or Preferred Stock voting separately as a class shall be required therefor.

Effective as of 5:00 p.m., Eastern time, on the date this Certificate of Amendment to the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware, each [five (5) to twenty (20)]* shares of the Corporation's Common Stock, par value \$0.0001 per share, issued and outstanding shall, automatically and without any action on the part of the respective holders thereof, be combined and converted into one (1) share of Common Stock, par value \$0.0001 per share, of the Corporation. No fractional shares shall be issued and, in lieu thereof, any holder of less than one (1) share of Common Stock shall be entitled to receive cash for such holder's fractional share based upon the closing sales price of the Corporation's Common Stock as reported on The Nasdaq Stock Market LLC, as of the date this Certificate of Amendment is filed with the Secretary of State of the State of Delaware."

FOURTH: This Certificate of Amendment of the Amended and Restated Certificate of Incorporation has been duly adopted by the stockholders of the Corporation in accordance with the provisions of Section 242 of the Delaware General Corporation Law.

* These amendments approve the combination of any whole number of shares of Common Stock between and including five (5) and twenty (20) into one (1) share of Common Stock. By these amendments, the stockholders would approve each of the sixteen amendments proposed

IN WITNESS WHEREOF, this Corporation has caused this Certificate of Amendment of the Amended and Restated Certificate of Incorporation to be signed by its Chief Executive Officer this day of _____, _____.

Name:

Its: Chief Executive Officer



P.O. BOX 8016, CARY, NC 27512-9903

YOUR VOTE IS IMPORTANT! PLEASE VOTE BY:

	<p>INTERNET</p> <p>Go To: www.proxypush.com/NBSE</p> <ul style="list-style-type: none"> • Cast your vote online • Have your Proxy Card ready • Follow the simple instructions to record your vote
	<p>PHONE Call 1-866-206-4393</p> <ul style="list-style-type: none"> • Use any touch-tone telephone • Have your Proxy Card ready • Follow the simple recorded instructions
	<p>MAIL</p> <ul style="list-style-type: none"> • Mark, sign and date your Proxy Card • Fold and return your Proxy Card in the postage-paid envelope provided
	<p>You must register to attend the meeting online and/or participate at www.proxydocs.com/NBSE</p>

NeuBase Therapeutics, Inc.
Annual Meeting of Stockholders



For Stockholders of record as of July 15, 2022

TIME: Thursday, September 8, 2022 8:30 AM, Eastern Time
PLACE: Annual meeting to be held live via the Internet
Please visit www.proxydocs.com/NBSE for more details

This proxy is being solicited on behalf of the Board of Directors

The undersigned hereby appoints DIETRICH STEPHAN and TODD BRANNING (the "Named Proxies"), and each or either of them, as the true and lawful attorneys of the undersigned, with full power of substitution and revocation, and authorizes them, and each of them, to vote all the shares of capital stock of NeuBase Therapeutics, Inc. which the undersigned is entitled to vote at said meeting and any adjournment thereof upon the matters specified and upon such other matters as may be properly brought before the meeting or any adjournment thereof, conferring authority upon such true and lawful attorneys to vote in their discretion on such other matters as may properly come before the meeting and revoking any proxy heretofore given.

THE SHARES REPRESENTED BY THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, SHARES WILL BE VOTED IDENTICAL TO THE BOARD OF DIRECTORS' RECOMMENDATION. This proxy, when properly executed, will be voted in the manner directed herein. In their discretion, the Named Proxies are authorized to vote upon such other matters that may properly come before the meeting or any adjournment or postponement thereof.

You are encouraged to specify your choice by marking the appropriate box (SEE REVERSE SIDE) but you need not mark any box if you wish to vote in accordance with the Board of Directors' recommendation. The Named Proxies cannot vote your shares unless you sign (on the reverse side) and return this card.

PLEASE BE SURE TO SIGN AND DATE THIS PROXY CARD AND MARK ON THE REVERSE SIDE



NeuBase Therapeutics, Inc.

Annual Meeting of Stockholders

Please make your marks like this:

THE BOARD OF DIRECTORS RECOMMENDS A VOTE:
FOR ON PROPOSALS 1, 2, 3 AND 4

PROPOSAL	YOUR VOTE			BOARD OF DIRECTORS RECOMMENDS
<p>1. To elect two Class II directors, Dietrich Stephan, Ph.D., and Gerry J. McDougall, nominated by our Board of Directors, to serve until our 2025 Annual Meeting of Stockholders and until their successors are duly elected and qualified</p> <p style="margin-left: 20px;">1.01 Dietrich Stephan Ph.D.</p> <p style="margin-left: 20px;">1.02 Gerry J. McDougall</p>	<p>FOR</p> <input type="checkbox"/> <input type="checkbox"/>	<p>WITHHOLD</p> <input type="checkbox"/> <input type="checkbox"/>	<div style="text-align: center;"> FOR FOR </div>	
<p>2. Ratify the selection by the Audit Committee of the Board of Directors of Marcum LLP as the Company's independent registered public accounting firm for its fiscal year ending September 30, 2022</p>	<p>FOR</p> <input type="checkbox"/>	<p>AGAINST</p> <input type="checkbox"/>	<p>ABSTAIN</p> <input type="checkbox"/>	<p>FOR</p>
<p>3. Advisory vote to approve named executive officer compensation</p>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<p>FOR FOR</p>
<p>4. Approval of a series of alternate amendments to the Company's amended and restated certificate of incorporation to effect, at the discretion of the Company's Board of Directors, a reverse split of the Company's common stock, whereby each outstanding 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 or 20 shares would be combined, converted and changed into one share of common stock.</p>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<p>FOR FOR</p>

You must register to attend the meeting online and/or participate at www.proxydocs.com/NBSE

Authorized Signatures - Must be completed for your instructions to be executed.

Please sign exactly as your name(s) appears on your account. If held in joint tenancy, all persons should sign. Trustees, administrators, etc., should include title and authority. Corporations should provide full name of corporation and title of authorized officer signing the Proxy/Vote Form.

 Signature (and Title if applicable)

 Date

 Signature (if held jointly)

 Date