

**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
-

Preliminary Copy — Subject to Completion
In accordance with Rule 14a-6(d) under Regulation 14A of the Securities Exchange Act of 1934, please be advised that NeuBase Therapeutics, Inc. intends to release definitive copies of this Proxy Statement to shareholders beginning on or about August 15, 2023

NEUBASE THERAPEUTICS, INC.
350 Technology Drive
Pittsburgh, PA 15219
NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held on September 28, 2023

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 28 2023, at 8:30 a.m., Eastern Time, exclusively online via live audio-only webcast, for the following purposes:

- (1) To elect one Class III director, nominated by our Board of Directors, to serve until our 2026 Annual Meeting of Stockholders and until his successor is 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 December 31, 2023;
- (3) To conduct an advisory (non-binding) vote on executive compensation;
- (4) To approve an amendment and restatement of the Company’s Amended and Restated Certificate of Incorporation, as amended, to reflect Delaware law provisions allowing officer exculpation; 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 August 4, 2023. 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 August 15, 2023, 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 27, 2023 (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 A. Stephan, Ph.D.
Chief Executive Officer

August 1, 2023
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.

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**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 28, 2023, 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, 2022 (the "2022 Annual Report") are being distributed or made available via the Internet on or about August 15, 2023 to the stockholders of record of the Company's common stock, par value \$0.0001 per share (the "common stock"), as of August 4, 2023 (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 August 15, 2023, 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 2022 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 2,083,143 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 — Ratification of Appointment of Independent Registered Public Accounting Firm, but not with respect to matters that are considered non-routine, such as Proposal No. 1 — Election of Class III Director, Proposal No. 3 — Advisory Vote on Executive Compensation, and Proposal No. 4 — Approval of the Amendment and Restatement of the Company's Amended and Restated Certificate of Incorporation, as amended, to Reflect Delaware Law Provisions Allowing Officer Exculpation, 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 chairperson 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.

An abstention is the voluntary act of not voting by a shareholder who is present at a meeting (in person or by proxy) and entitled to vote. 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, pursuant to the Company's Amended and Restated Bylaws, as amended (the "Bylaws"), abstentions will have no effect on Proposal No. 1 — Election of Class III Director and will have the same effect as a vote "Against" the following proposals: Proposal No. 2 — Ratification of Appointment of Independent Registered Public Accounting Firm; Proposal No. 3 — Advisory Vote on Executive Compensation; and Proposal No. 4 — Approval of the Amendment and Restatement of the Company's Amended and Restated Certificate of Incorporation, as amended, to Reflect Delaware Law Provisions Allowing Officer Exculpation.

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 Class III Director; Proposal No. 2 — Ratification of Appointment of Independent Registered Public Accounting Firm; and Proposal No. 3 — Advisory Vote on Executive Compensation. However, because Proposal No. 2 — Ratification of Appointment of Independent Registered Public Accounting Firm, is considered a discretionary matter, 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 — Approval of the Amendment and Restatement of the Company's Amended and Restated Certificate of Incorporation, as amended, to Reflect Delaware Law Provisions Allowing Officer Exculpation, 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 27, 2023. 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 27, 2023.

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 27, 2023 (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 nominee 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.

Change of Fiscal Year End

On April 21, 2023, the Board approved a change in the Company's fiscal year end from September 30 to December 31, effective for the fiscal year beginning January 1, 2023 and ending December 31, 2023. Accordingly, the Company's most recent previous fiscal year end was September 30, 2022 and the Company's next fiscal year end will be December 31, 2023.

Reverse Stock Split

On June 14, 2023, we effected a 1-for-20 reverse split of our common stock. All share and per share amounts for all periods presented in this proxy statement have been adjusted retroactively, where applicable, to reflect this reverse stock split.

PROPOSAL NO. 1 ELECTION OF CLASS III DIRECTOR

Overview

The Company's Amended and Restated Certificate of Incorporation, as amended, 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 five directors. The Class III director (whose term expires at the Annual Meeting) is Franklyn G. Prendergast, M.D., Ph.D. The Class I directors (whose terms expire at the 2024 annual meeting of stockholders ("2024 Annual Meeting")) are Dov A. Goldstein, M.D. and Eric I. Richman. The Class II directors (whose terms expire at the 2025 annual meeting of stockholders) are Gerald J. McDougall and Dietrich A. Stephan, Ph.D. The Class III director elected at the Annual Meeting will hold office until the 2026 annual meeting of stockholders, and until his successor is elected and qualified, unless he resigns or his seat becomes 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 Franklyn G. Prendergast, M.D., Ph.D. for re-election as a Class III director. The nominee has indicated his willingness to serve if elected. Should the nominee 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 a substitute nominee 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 nominee 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 the nominee for consideration for election at the Annual Meeting.

Information Regarding Nominee and Incumbent Directors

The Nominating and Corporate Governance Committee has recommended, and the Board has nominated, Franklyn G. Prendergast, M.D., Ph.D. to be re-elected as a Class III director at the Annual Meeting. The following table contains information about the nominee and about each of the Company's continuing directors: the year each was first elected a director, their respective ages as of July 1, 2023, 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	55	Chairperson	2024	I
Gerald J. McDougall ⁽³⁾⁽⁴⁾	2021	56	Director	2025	II
Franklyn G. Prendergast, M.D., Ph.D. ⁽²⁾⁽⁴⁾	2019	78	Director	2023	III
Eric I. Richman ⁽²⁾⁽³⁾⁽⁴⁾	2019	62	Director	2024	I
Dietrich A. Stephan, Ph.D.	2019	53	Chief Executive Officer and Director	2025	II

(1) Ages as of July 1, 2023.

(2) Member of the Audit Committee.

(3) Member of the Nominating and Corporate Governance Committee.

(4) Member of the Compensation Committee.

Board Diversity Matrix (as of August 1, 2023)

Gender	Female	Male
Number of Directors based on gender identity	0	5
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	4
Asian	0	0
LGBTQ+	0	0
Information not provided	0	1

Board Diversity Matrix (as of August 4, 2022)

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 III Director Nominated for Election

The following person has been nominated by our Board to be elected as a Class III director at the Annual Meeting:

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

Class I Directors Continuing in Office until 2024

The following directors will continue in office until the 2024 Annual Meeting, 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 and as Chairperson of our Board since October 2022. 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 Cempira, 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. We believe that Dr. Goldstein's medical training and his experience in the biopharmaceutical industry as a venture capital investor, 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 of our Board.

Eric I. Richman, has served as a member of our Board since July 2019. Mr. Richman currently serves as a senior advisor and a member of the Board of Directors of Gain Therapeutics, Inc. (Nasdaq: GANX), a biotechnology company, where he previously served as its Chief Executive Officer from July 2020 to September 2022. Mr. Richman 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 New York Stock Exchange, 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.

Class II Directors Continuing in Office until 2025

The following directors will continue in office until the 2025 annual meeting of stockholders, or until their earlier resignation or removal in accordance with our Bylaws:

Gerald 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 A. Stephan, Ph.D., has been our Chief Executive Officer since July 2019, and he served as our President from July 2019 until June 2022 and as our Chairperson from July 2019 until October 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. 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.

Required Vote

Members of the Board are elected by a plurality vote, which means that the nominee receiving the most affirmative votes will be elected to the Board as a Class III director.

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. Prendergast has an interest in this Proposal No. 1 — Election of Class III Director, as he is currently a member of the Board.

THE BOARD RECOMMENDS A VOTE *FOR* THE NOMINEE 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 December 31, 2023, 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.

During the Company’s fiscal years ended September 30, 2022 and September 30, 2021, 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, 2022, and September 30, 2021, respectively.

	2022	2021
Audit Fees ⁽¹⁾ :	\$322,650	\$272,950
Audit-Related Fees ⁽²⁾ :	—	—
Tax Fees ⁽³⁾ :	—	—
All Other Fees ⁽⁴⁾ :	—	—
Total All Fees:	\$322,650	\$272,950

- (1) Audit fees for fiscal year 2022 consist of fees for professional services performed by Marcum for the audit of our 2022 annual financial statements that are included in our Annual Report on Form 10-K for the fiscal year ended September 30, 2022, fees for the review of financial statements included in our Quarterly Reports on Form 10-Q filed in fiscal year 2022, 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 year 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 fiscal year ended September 30, 2021, fees for the review of financial statements included in our Quarterly Reports on Form 10-Q filed in fiscal year 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.
- (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, 2022 or September 30, 2021.

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 for professional services rendered for the fiscal years ended September 30, 2022 and September 30, 2021.

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 entitled to vote 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 December 31, 2023.

THE BOARD RECOMMENDS A VOTE *FOR* RATIFICATION OF THE APPOINTMENT OF MARCUM LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDING DECEMBER 31, 2023.

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 entitled to vote 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**APPROVAL OF THE AMENDMENT AND RESTATEMENT OF THE COMPANY'S AMENDED AND RESTATED CERTIFICATE OF INCORPORATION, AS AMENDED, TO REFLECT DELAWARE LAW PROVISIONS ALLOWING OFFICER EXCULPATION**

On August 1, 2022, Section 102(b)(7) of the General Corporation Law of the State of Delaware (the "DGCL") was amended to permit a Delaware corporation to include in its certificate of incorporation a provision to eliminate or limit the monetary liability of certain corporate officers for breach of the duty of care.

The Board has determined and declared that it is advisable and in the best interests of the Company and its stockholders to amend and restate the Company's Amended and Restated Certificate of Incorporation, as amended (the "Certificate of Incorporation"), to (i) eliminate the monetary liability of certain of the Company's officers for breach of the duty of care, to the extent permitted under Section 102(b)(7) of the DGCL (the "Officer Exculpation"), and (ii) integrate the provisions of the Certificate of Incorporation (in the form attached hereto as Appendix A, the "Restated Charter").

Reasons for the Proposal

The Board believes that eliminating personal monetary liability for officers under certain circumstances is reasonable and appropriate.

Delaware corporations that fail to adopt officer exculpation provisions may experience a disproportionate amount of nuisance litigation and disproportionately increased costs in the form of increased director and officer liability insurance premiums, as well as diversion of management attention from the business of the corporation. Prior to the amendment of Section 102(b)(7) of the DGCL, Delaware law permitted Delaware corporations to exculpate directors from personal liability for monetary damages associated with breaches of the duty of care, but that protection did not extend to a Delaware corporation's officers. Consequently, shareholder plaintiffs have employed the tactic of bringing certain claims that would otherwise be excused if brought against directors against individual officers to avoid dismissal of such claims. The amendment to Section 102(b)(7) of the DGCL was adopted to address inconsistent treatment between officers and directors and the rising costs of litigation and insurance. Approving the proposed amendment and restatement of the Certificate of Incorporation would facilitate the Company diverting additional resources towards its business rather than expenses related to nuisance litigation and liability insurance premiums.

Approving the proposed amendment and restatement of the Certificate of Incorporation would enable the Company's officers to exercise their business judgment in furtherance of the Company's shareholders' interests without the potential distraction of risking personal liability. An officer's role often requires them to make decisions on crucial matters and in response to time-sensitive opportunities and challenges, which can create substantial risk of investigations, claims, actions, suits, or proceedings seeking to impose liability based on hindsight, and regardless of merit.

Further, the Board believes that failing to approve the proposed amendment and restatement of the Certificate of Incorporation could impact the Company's recruitment and retention of exceptional officer candidates who conclude that the potential exposure to liabilities, costs of defense, and other risks of proceedings exceeds the benefits of serving as an officer of the Company.

A Delaware corporation seeking to extend the benefits of the newly amended Section 102(b)(7) to its corporate officers must amend its certificate of incorporation, as the protections do not apply automatically and must be embedded in the corporation's certificate of incorporation to be effective. Accordingly, the Board has determined it advisable and in the best interests of the Company and its stockholders to seek stockholders' approval for the proposed amendment and restatement of the Certificate of Incorporation.

Taking into account the narrow class and type of claims for which officers' liability would be excused, and the benefits the Nominating and Corporate Governance Committee believes would accrue to the Company and its stockholders in the form of (i) an enhanced ability to attract and retain talented officers, (ii) limiting litigation and insurance liability premium costs for its officers and (iii) better ensuring the Company's officers would be able to exercise their business judgment, the Nominating and Corporate Governance Committee recommended to the Board an amendment to the Certificate of Incorporation to

provide such exculpation to the extent permitted by Delaware law. Accordingly, we ask our stockholders to approve the proposed amendment and restatement of the Certificate of Incorporation. Based on this recommendation, the Board determined that it is in the best interests of the Company and our stockholders to amend and restate the Certificate of Incorporation as described herein and in the form attached hereto as Appendix A.

If the stockholders approve the proposed amendment and restatement of the Certificate of Incorporation, the Company intends to file the Restated Charter with the Secretary of State of the State of Delaware. However, the Board reserves the right to abandon the filing of the Restated Charter with the Secretary of State of the State of Delaware, even if approved by the stockholders of the Company, if the Board, in its discretion, determines, prior to filing the Restated Charter with the Secretary of State of the State of Delaware, that the Restated Charter and the Officer Exculpation are no longer in the best interests of the Company or its stockholders.

The discussion above is qualified in its entirety by reference to the full text of the proposed Restated Charter, which is attached hereto as Appendix A.

Our executive officers have an interest in Proposal No. 4 — Approval of the Amendment and Restatement of the Company's Amended and Restated Certificate of Incorporation, as amended, to Reflect Delaware Law Provisions Allowing Officer Exculpation, as the scope of potential liability under the DGCL for certain of our executive officers is subject to this vote.

Required Vote

The affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of the outstanding shares of common stock entitled to vote on the proposal is required to approve the proposed amendment and restatement of the Certificate of Incorporation in the form attached hereto as Appendix A.

THE BOARD RECOMMENDS A VOTE *FOR* THE APPROVAL OF THE PROPOSED AMENDMENT AND RESTATEMENT OF THE CERTIFICATE OF INCORPORATION TO REFLECT DELAWARE LAW PROVISIONS ALLOWING OFFICER EXCULPATION, AS DESCRIBED IN THIS PROPOSAL NO. 4.

BOARD OF DIRECTORS AND COMMITTEES AND CORPORATE GOVERNANCE

Meetings of the Board

During the fiscal year ended September 30, 2022, the Board met six times and acted by unanimous written consent five 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. All members of the Board serving at the time of our 2022 annual meeting of stockholders attended the 2022 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, 2022, the Audit Committee met four times. As of the Record Date, the Audit Committee consisted of Dov A. Goldstein (Chairperson), Franklyn G. Prendergast and Eric I. Richman, neither 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 for the fiscal year ended September 30, 2022. As of the Record Date, the Nominating and Corporate Governance Committee consisted of Eric I. Richman (Chairperson) and Gerald J. McDougall, neither 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 nominee 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, 2022, the Compensation Committee met twice and acted by unanimous written consent four times. As of the Record Date, the Compensation Committee consisted of Eric I. Richman (Chairperson), Franklyn G. Prendergast and Gerald J. McDougall, 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 2022, 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 2022, 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, 2022. 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 Chairperson 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.

None of the directors or the nominee for director was selected pursuant to any arrangement or understanding, other than compensation arrangements in the ordinary course of business.

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 and Prendergast, 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 of directors has an independent Chairperson, Dr. Goldstein, and we believe that having independent leadership is an important component of our governance structure. Our independent Chairperson has authority, among other things, to preside over board of directors meetings, including meetings of the independent directors, and to call special meetings of our board of directors. Accordingly, the independent Chairperson has substantial ability to shape the work of our board of directors. We currently believe that having an independent Chairperson creates an environment that is more conducive to objective evaluation and oversight of management’s performance, increasing management accountability and improving the ability of our board of directors to monitor whether management’s actions are in the best interests of our company and our stockholders.

In addition, we believe that separation of the roles of Chairperson and Chief Executive Officer enhances the accountability of our Chief Executive Officer to our board of directors and encourages balanced decision making. While our Chief Executive Officer is responsible for our day-to-day leadership and operations, our independent Chairperson provides guidance to our board of directors and sets the agenda for meetings of the board of directors.

However, no single leadership model is right for all companies and at all times. Our board of directors recognizes that, depending on the circumstances, other leadership models, such as combining the role of Chairperson with the role of Chief Executive Officer, might be appropriate. Accordingly, our board of directors periodically reviews its leadership structure and will continue to evaluate and implement the leadership structure that it concludes most effectively supports our board of directors in fulfilling its responsibilities.

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. 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. The Audit Committee oversees risk management and assessment activities related to financial and disclosure controls, related party transactions and cybersecurity risks. The Compensation Committee oversees risk management activities relating to our compensation policies and practices. The Nominating and Corporate Governance Committee oversees risk management activities relating to the composition of our Board and corporate governance matters. 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 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(e)(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, 2023, our executive officers and their age and positions are set forth in the following table.

Name	Age	Position
Dietrich A. Stephan, Ph.D.	53	Chief Executive Officer and Director
Todd P. Branning	53	Chief Financial Officer and Secretary

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

Todd P. 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.

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, 2022 and 2021 to (1) our principal executive officer during the fiscal year ended September 30, 2022 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, 2022 (collectively our “Named Executive Officers”):

Name and Position	Year	Salary	Bonus ⁽¹⁾	Stock Awards	Option Awards ⁽²⁾	Non-Equity Incentive Plan Compensation	All Other Compensation ⁽³⁾	Total
Dietrich A. Stephan, Chief Executive Officer	2022	\$536,798	\$247,000	\$ —	\$318,240	\$ —	\$ 52,782	\$1,154,820
	2021	\$469,149	\$196,875	\$ —	\$799,886	\$ —	\$ 47,808	\$1,513,718
Todd P. Branning, Chief Financial Officer	2022	\$310,577	\$ —	\$ —	\$495,000	\$ —	\$ 13,446	\$ 819,023
	2021	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
William R. Mann, Ph.D., Former President and Chief Operating Officer ⁽⁴⁾	2022	\$422,221	\$168,000	\$ —	\$ 62,587	\$ —	\$ 30,111	\$ 682,919
	2021	\$381,923	\$ 62,500	\$ —	\$ 61,750	\$ —	\$ 25,975	\$ 532,148

- (1) In the fiscal year ended September 30, 2021, the Company awarded a cash bonus to Dr. Stephan in the amount of \$196,875 for services rendered during the calendar year ended December 31, 2020, which was not committed during such fiscal year and was approved by the Compensation Committee of the Board during May 2021. Pursuant to the offer letter between the Company and Dr. Stephan, on March 16, 2023, Dr. Stephan was awarded a discretionary annual bonus for service with the Company during calendar year 2022 equal to 25% of his base salary, as determined at the discretion of the Compensation Committee. Pursuant to the offer letter between the Company and Mr. Branning, on March 16, 2023, Mr. Branning was awarded a discretionary annual bonus for service with the Company during calendar year 2022 equal to 20% of his base salary, as determined at the discretion of the Compensation Committee. Dr. Mann and Mr. Branning were eligible for an annual performance bonus with a target amount equal to 40% of their respective base salaries, provided that they remained employed by the Company on the date that such bonus would be paid, and subject to certain other conditions, as applicable, as determined at the discretion of the Compensation Committee.
- (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 consolidated financial statements included in our 2022 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) Dr. Mann resigned from the Company effective October 31, 2022.

All Other Compensation

Name	Year	401(k) Company	Group Term	Health Benefits	Life Insurance	Paid Time Off Buy Back	Total Other Compensation
Dietrich A. Stephan, Ph.D. Chief Executive Officer	2022	\$ 10,694	\$ —	\$ 18,155	\$ 23,933	—	\$ 52,782
	2021	\$ —	\$ —	\$ 25,716	22,092	—	\$ 47,808
Todd P. Branning Chief Financial Officer	2022	\$ 7,356	\$ 439	\$ 5,651	—	—	\$ 13,446
	2021	\$ —	\$ —	\$ —	—	—	\$ —
William R. Mann, Ph.D. Former President and Chief Operating Officer	2022	\$ 8,287	\$ 684	\$ 21,140	—	—	\$ 30,111
	2021	\$ —	\$ 454	25,222	—	—	\$ 25,676

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. Stephan’s annual salary to \$540,000 in January 2022, our Named Executive Officers did not receive base salary increases in fiscal 2022 or 2021.

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 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 previously disclosed merger between Ohr Pharmaceutical, Inc., a Delaware corporation, and NeuBase Therapeutics, Inc., a Delaware corporation ("Legacy NeuBase"), which was consummated on July 12, 2019 (the "Merger"). Time-based stock option awards to Mr. Branning 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 2022, 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 2022, 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 listing requirements and has concluded that the engagement of Compensia does not raise any conflicts of interest.

Outstanding Equity Awards as of September 30, 2022

The following table shows information regarding our outstanding equity awards as of September 30, 2022 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	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 A. Stephan, Ph.D.	125,984	—	—	\$ 0.022	12/31/2023 ⁽¹⁾	—	—	—	—
	3,608	4,638 ⁽²⁾	—	\$ 138.40	12/29/2030 ⁽⁴⁾	—	—	—	—
	—	15,300 ⁽³⁾	—	\$ 31.60	1/24/2032 ⁽⁴⁾	—	—	—	—
Todd P. Branning	—	15,000 ⁽⁵⁾	—	\$ 50.40	1/10/2032 ⁽⁴⁾	—	—	—	—
William R. Mann, Ph.D.	4,740	4,010 ⁽⁶⁾	—	\$ 149.20	7/27/2030 ⁽⁴⁾	—	—	—	—
	339	911 ⁽⁷⁾	—	\$ 69.80	8/16/2031 ⁽⁴⁾	—	—	—	—
	—	3,009 ⁽³⁾	—	\$ 31.60	1/24/2032 ⁽⁴⁾	—	—	—	—

- (1) The options have a term of five years from the date of issuance.
- (2) The stock options vest over four years from the date of grant on December 29, 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.
- (3) The stock options vest over four years from the date of grant on January 24, 2022, 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.
- (4) The options have a term of 10 years from the date of issuance.
- (5) The stock options vest over four years from the date of grant on January 10, 2022, 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.
- (6) The stock options vest 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.
- (7) The stock options vest over four years from the date of grant of August 16, 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 A. Stephan, Ph.D.

Historically, Legacy NeuBase had one executive officer, Dietrich A. 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, 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 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 (pre-split) of Legacy NeuBase common stock with an exercise price of \$0.0011 per share (pre-split). 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 165,597 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.

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, as applicable, 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. On January 7, 2022, the Company increased Dr. Stephan's base salary to \$540,000 and determined he would be eligible to receive a discretionary annual performance bonus of up to 50% of his base salary in calendar year 2021.

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 P. 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 is \$425,000, and he will have an annual performance bonus with a target of 40% of his base salary. Mr. Branning's employment is on an "at will" basis. Additionally, pursuant to the offer letter the Company granted Mr. Branning an option to purchase 15,000 shares of 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 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 Mr. Branning is terminated by the Company without cause (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 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, (3) immediate vesting of then unvested stock awards issued to Mr. Branning by the Company that would have vested during the 12 month period subsequent to the termination of his employment, and (4) subject to the discretion of the Board, a prorated portion of his annual bonus target for the year of termination.

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

William R. 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, pursuant to the offer letter the Company granted Dr. Mann an option to purchase 8,750 shares of 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 would vest on the first anniversary of Dr. Mann's start date, and 1/36th of the remaining shares underlying such option would vest at the end of each calendar month thereafter. On July 28, 2021, the Company increased Dr. Mann's annual salary to \$420,000, and effective August 16, 2021, granted him an additional option to purchase 1,250 shares of 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, granted on July 28, 2021, vested on July 28, 2022 and 1/36th of the remaining shares underlying such option will vest on a monthly basis thereafter. Additionally, on January 24, 2022, the Company granted Dr. Mann an additional option to purchase 3,009 shares of 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, granted on January 24, 2022, would vest on January 24, 2023 and 1/36th of the remaining shares underlying such option would vest on a monthly basis thereafter.

Dr. Mann's employment with us was at-will, meaning either we or Dr. Mann could terminate the employment relationship at any time, with or without cause. If Dr. Mann was terminated by us without cause or Dr. Mann resigned for good reason (defined generally as a reduction in his salary among 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 Plan), then, subject to execution and

delivery of a general release of all claims, his then outstanding, unvested options, if any, would vest and be exercisable as to all of the covered shares. If Dr. Mann was terminated by us without cause (whether or not in connection with a change in control), we would have been 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 the Board, 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.

Dr. Mann resigned from the Company on October 31, 2022. Dr. Mann's resignation was not a result of any disagreement with the Company or any matter relating to its accounting or financial policies or procedures.

Pay Versus Performance

Our Compensation Committee approves and administers our executive compensation program to align executive compensation with stockholder interests by linking pay to performance. Our overall compensation program includes a mix of short-term and long-term components through our annual incentive plan and equity awards.

As required by Section 953(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 402(v) of Regulation S-K, we are providing the following information about the relationship between executive compensation actually paid and certain financial performance of the Company.

We are a smaller reporting company pursuant to Rule 405 of the Securities Act and, as such, are only required to include information for the past two fiscal years in the table below.

Pay Versus Performance Table

Fiscal Year	Summary Compensation Table Total for CEO (\$) ⁽¹⁾	Compensation Actually Paid to CEO (\$) ⁽²⁾	Average Summary Compensation Table Total for Non-CEO Named Executive Officers ("NEOs") (\$) ⁽³⁾	Average Compensation Actually Paid to Non-CEO NEOs (\$) ⁽²⁾⁽³⁾	Value of Initial Fixed \$100 Investment Based on: Total Shareholder Return (\$) ⁽⁴⁾	Net Income (\$ millions)
2022	\$ 1,154,820	\$ 650,042	\$ 750,971	\$ 379,204	\$ 5.20	\$ (33.78)
2021	\$ 1,513,718	\$ 997,784	\$ 848,982	\$ (584,865)	\$ 47.56	\$ (25.41)

(1) Dr. Stephan was the CEO for each of 2022 and 2021.

(2) SEC rules require certain adjustments be made to the Summary Compensation Table totals to determine Compensation Actually Paid as reported in the Pay versus Performance Table. Compensation Actually Paid does not necessarily represent cash and/or equity value transferred to the applicable named executive officer without restriction, but rather is a value calculated under applicable SEC rules. In general, Compensation Actually Paid is calculated as Summary Compensation Table total compensation adjusted to include the fair market value of equity awards as of September 30 of the applicable year or, if earlier, the vesting date (rather than the grant date). Named executive officers do not participate in a defined benefit plan so no adjustment for pension benefits is included in the table below. Similarly, no adjustment is made for dividends as dividends are factored into the fair value of the award.

(3) The non-CEO named executive officers reflects the following individuals in each year:

2022: Dr. William Mann and Mr. Todd Branning.

2021: Dr. William Mann and Mr. Sam Backenroth.

(4) Total Stockholder Return is determined based on the value of an initial fixed investment of \$100 at September 30, 2020.

The following table outlines the adjustments made to the compensation earned by our CEO and non-CEO NEOs, as presented in the Summary Compensation Table, to derive the Compensation Actually Paid to our CEO and non-CEO NEOs.

Item and Value Added (Deducted)	2022	2021
For CEO:		
Summary Compensation Table Total	\$1,154,820	\$1,513,718
- Summary Compensation Table "Option Awards" column value	(318,240)	(799,886)
+ year-end fair value of outstanding and unvested equity awards granted in the fiscal year	47,863	283,952
+/- change in fair value of outstanding and unvested equity awards granted in prior years	(163,254)	0
+ vest date fair value of equity awards granted in the covered year	0	0
+/- change in fair value of prior-year equity awards vested in the fiscal year	(71,147)	0
Compensation Actually Paid	<u>\$ 650,042</u>	<u>\$ 997,784</u>
For Non-CEO NEOs (Average):		
Summary Compensation Table Total	\$ 750,971	\$ 848,982
- Summary Compensation Table "Option Awards" column value	(278,794)	(350,387)
+ year-end fair value of outstanding and unvested equity awards granted in the fiscal year	22,790	29,207
+/- change in fair value of outstanding and unvested equity awards granted in prior years	(86,743)	(216,241)
+ vest date fair value of equity awards granted in the covered year	0	0
+/- change in fair value of prior-year equity awards vested in the fiscal year	(29,020)	(896,426)
Compensation Actually Paid	<u>\$ 379,204</u>	<u>\$ (584,865)</u>

2022 Most Important Measures to Determine Compensation Actually Paid

As required by Item 402(v) of Regulation S-K, we have identified the following performance measures as being the most important in linking actual compensation paid to our executives to our performance. We believe short- and long-term shareholder value is best created by developing our proprietary precision genetic medicines platform technology able to uniquely drug the double-stranded human genome and address diseases with serious medical need. The performance measures we use to evaluate our executives' performance are operational as described below.

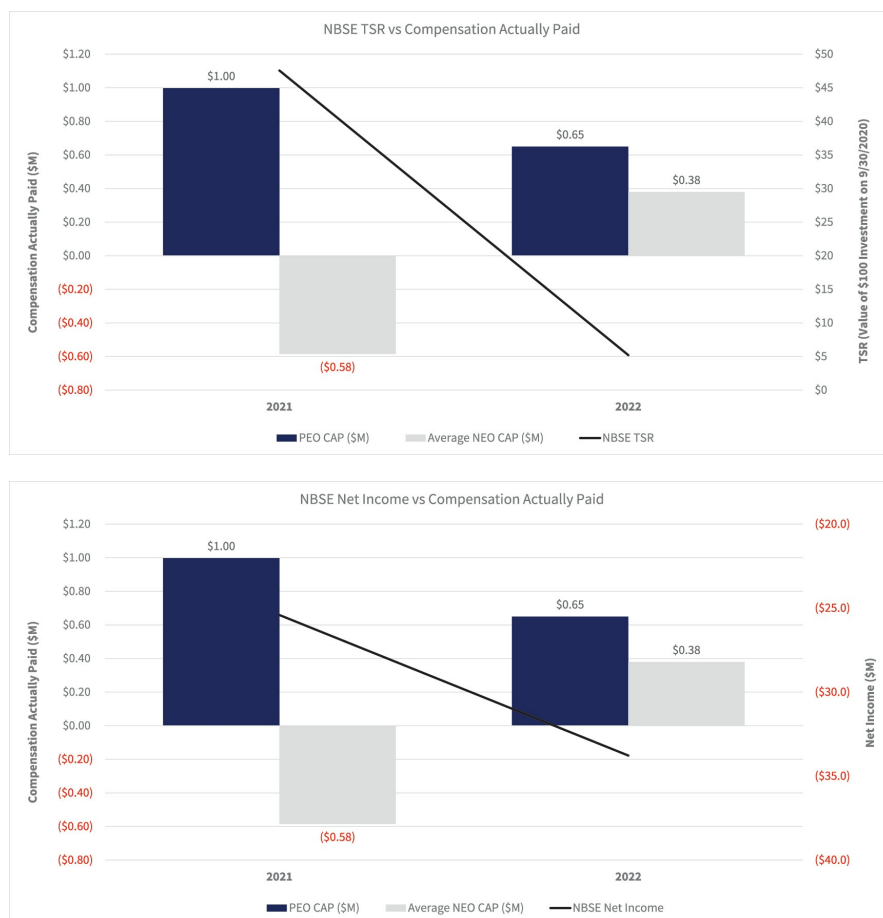
Most Important Performance Measures

Total Shareholder Return

Net Income

Relationship Between Compensation Actually Paid and Company Performance

The following graphs address the relationship between compensation “actually paid” as disclosed in the Pay versus Performance Table and Total Shareholder Return and Net Income.



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

On September 9, 2020, the Compensation Committee approved an amended Outside Director Compensation Policy (the “Prior Policy”). Further, on September 8, 2022, the Compensation Committee approved a further amended Outside Director Compensation Policy (the “Amended Policy”). The Company intended for the Outside Director Compensation Policy, as amended, to formalize the Company’s policy regarding cash compensation, grants of equity and reimbursement of travel expenses to its Outside Directors.

Prior Policy

Cash Compensation of Directors

Under the Prior Policy, directors who are not employees of the Company (the “Outside Directors”) were entitled to an annual 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 and Corporate Governance Committees in a non-chairperson capacity were entitled to an annual cash retainer of \$7,500, \$5,000 and \$4,000, respectively, for services on such committees, and the chairpersons of such committees were entitled to an annual cash retainer of \$15,000, \$10,000 and \$8,000, respectively, for their collective service both as members of such committees and as chairpersons of such committees. The Prior Policy did not provide for any per meeting attendance fees for any meeting of the Board or its committees.

Equity Grants to Directors

Under the Prior 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 was granted a nonstatutory stock option to purchase shares of common stock having a grant date fair value of \$320,000, rounded down to the nearest whole share (the “Prior Policy NSO Appointment Award”). Subject to further adjustment provisions as described in the Prior Policy and the Plan, 25% of each Prior Policy NSO Appointment Award will vest on the one-year anniversary of the grant date, and the remaining portion of the Prior Policy NSO Appointment Award will vest on an equal monthly basis over the following 36 months, provided that the Outside Director was in continuous service with the Company or an affiliate of the Company through the applicable vesting date. Each Prior Policy 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 was granted a nonstatutory stock option to purchase shares of common stock having a grant date fair value of \$90,000, rounded down to the nearest whole share (the “Prior Policy Annual NSO Award”); provided that the initial Prior Policy Annual NSO Award granted on or after the Prior Policy’s effective date was made on September 9, 2020. Subject to further adjustment provisions as described in the Prior Policy and the Plan, 25% of each Prior Policy Annual NSO Award will vest on the one-year anniversary of the grant date, and the remaining portion of the Prior Policy 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 Prior Policy Annual NSO Award will vest fully upon a Change in Control (as defined under the 2019 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 Prior 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.

Furthermore, the Prior Policy provided that Outside Directors would be eligible to receive all types of awards (except incentive stock options) under the Plan (or the applicable equity plan in place at the time of grant), including discretionary awards not covered under the Prior Policy.

*Amended Policy**Cash Compensation of Directors*

Under the Amended Policy, Outside Directors will be entitled to an annual cash retainer of \$35,000 for their service on the Board (exclusive of any participation on its committees) (the “General Board Fee”). Outside Directors serving on any of the Board’s Audit, Compensation and Nominating and Corporate Governance Committees in a non-chairperson capacity will be entitled to an annual 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 an annual cash retainer of \$15,000, \$10,000 and \$8,000, respectively, for their collective service both as members of such committees and as chairpersons of such committees (“Committee Fee”). The Amended Policy does not provide for any per meeting attendance fees for any meeting of the Board or its committees.

The Amended Policy provides that the Lead Independent Director of the Board, or non-employee Chairperson of the Board, shall be entitled to an annual cash retainer of \$20,000 for their service as the Lead Independent Director, or non-employee Chairperson of the Board, which amount is in addition to the General Board Fee and any Committee Fees.

Equity Grants to Directors

Under the Amended 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 (i) to purchase that number of shares of Company common stock equal to 0.24% of the Company’s outstanding shares of voting capital stock as of the close of business on the effective date of such Outside Director’s appointment, rounded down to the nearest whole share, or (ii) with a grant date fair value of \$180,000, rounded down to the nearest whole share, whichever of clause (i) and (ii) above results in the lowest number of shares subject to the stock option (the “Amended Policy NSO Appointment Award”). Subject to further adjustment provisions as described in the Amended Policy and the Plan, 25% of each Amended Policy NSO Appointment Award will vest on the one-year anniversary of the grant date, and the remaining portion of the Amended Policy 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 Amended Policy 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 (the “Annual Meeting”) beginning with the 2022 Annual Meeting, each Outside Director automatically will be granted a nonstatutory stock option (i) to purchase that number of shares equal to 0.12% of the Company’s outstanding shares of voting capital stock as of the close of business on the date of such Annual Meeting, rounded down to the nearest whole share, or (ii) with grant date fair value of \$90,000, rounded down to the nearest whole share, whichever of clause (i) and (ii) above results in the lowest number of shares subject to the stock option (the “Amended Policy Annual NSO Award”). Subject to further adjustment provisions as described in the Amended Policy and the Plan, 25% of each Amended Policy Annual NSO Award will vest on the one-year anniversary of the grant date, and the remaining portion of the Amended Policy 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 Amended Policy 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 Amended 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 2022

Below is a summary of the non-employee director compensation paid in the fiscal year ended September 30, 2022.

Name	Cash Compensation⁽¹⁾	Option Grants⁽²⁾	Stock Awards⁽³⁾	Total
Dov A. Goldstein, M.D. ⁽⁴⁾	\$ 58,625	\$ 15,792	\$ —	\$ 74,417
Eric J. Ende, M.D. ⁽⁵⁾	\$ 28,125	\$ 335,792	\$ —	\$363,917
Franklyn G. Prendergast, M.D., Ph.D. ⁽⁶⁾	\$ 52,500	\$ 15,792	\$ —	\$ 68,292
Eric I. Richman ⁽⁷⁾	\$ 52,583	\$ 15,792	\$ —	\$ 68,375
Gerald J. McDougall ⁽⁸⁾	\$ 44,000	\$ 15,792	\$ —	\$ 59,792

- (1) Represents the value of the annual retainers payable to our non-employee directors during fiscal year 2022.
- (2) Pursuant to the Amended Policy, the Company granted each of our Outside Directors a stock option to purchase 1,880 shares of common stock with an exercise price of \$12.00 on September 9, 2022. 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 consolidated financial statements included in our 2022 Annual Report.
- (3) We did not grant any stock awards to our directors in fiscal year 2022.
- (4) Aggregate number of options and stock awards, respectively, outstanding as of September 30, 2022: 15,886 and 0.
- (5) Dr. Ende was appointed to our board of directors on January 1, 2022 and, in connection with the Prior Policy, was granted stock options to purchase shares of Company common stock having a grant date fair value of \$320,000. Aggregate number of options and stock awards, respectively, outstanding as of September 30, 2022: 10,170 and 0. Dr. Ende resigned from our board of directors, effective May 12, 2023.
- (6) Aggregate number of options and stock awards, respectively, outstanding as of September 30, 2022: 15,886 and 0.
- (7) Aggregate number of options and stock awards, respectively, outstanding as of September 30, 2022: 15,886 and 0.
- (8) Aggregate number of options and stock awards, respectively, outstanding as of September 30, 2022: 8,398 and 0.

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, 2022. 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 December 31, 2023.

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 A. Goldstein, M.D., M.B.A. (Chairperson)

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

Eric I. 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, 2020 and any currently proposed transactions to which we were a party and in which:

- the amounts involved exceeded or will exceed the lesser of \$120,000 or one percent of the average of the Company's total assets at year-end for the Company's last two fiscal years; 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 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 Offering

On April 26, 2021, the Company closed an underwritten public offering of 460,000 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 \$100.00 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 the Company. Entities affiliated with Greenlight Capital, Inc. ("Greenlight Inc.") purchased 35,000 shares of common stock in the public offering at the public offering price of \$100.00 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 our 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⁾
5% Stockholders		
Dietrich A. Stephan, Ph.D., Director and Chief Executive Officer ⁽²⁾	250,207	12.0%
Greenlight Capital, Inc. ⁽³⁾	136,350	6.5%
Armistice Capital Master Fund Ltd. ⁽⁴⁾	5,671,052	75.34%
Other Directors and Named Executive Officers⁽⁵⁾		
Todd P. Branning, Chief Financial Officer ⁽⁶⁾	4,210	*
Dov A. Goldstein, M.D., Chairperson ⁽⁷⁾	14,879	*
Gerald J. McDougall, Director ⁽⁸⁾	4,153	*
Franklyn G. Prendergast, M.D., Ph.D., Director ⁽⁹⁾	13,379	*
Eric I. Richman, Director ⁽¹⁰⁾	15,626	*
All current executive officers and directors as a group (six persons) ⁽¹¹⁾	302,454	14.5%

* Less than one percent.

- (1) Percentage ownership is calculated based on a total of 2,083,143 shares of our common stock issued and outstanding as of the Record Date.
- (2) Represents (i) 105,278 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date, (ii) 63,690 shares of our common stock held by family trusts, (iii) 73,589 shares of our common stock held directly by Dietrich A. Stephan, Ph.D. as a tenant by the entirety with his spouse, and (iv) 7,650 shares of our common stock underlying restricted stock units held by Dietrich A. 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 63,579 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 39,181 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 15,550 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

18,040 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 72,771 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 136,350 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) The securities are directly held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company (the “Master Fund”), and may be deemed to be beneficially owned by: (i) Armistice Capital, LLC (“Armistice Capital”), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. The securities include warrants, which are subject to a beneficial ownership limitation, which such limitation restricts the Master Fund from exercising that portion of the warrants that would result in the Master Fund and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. Such beneficial ownership limitation, at the time of initial issuance of the warrants, as applicable, was capped at either 4.99% or 9.99% beneficial ownership of the Company’s issued and outstanding common stock (post-exercise). These beneficial ownership limitations may be adjusted up or down, subject to providing advanced notice to the Company. Beneficial ownership as reflected herein reflects the total number of shares potentially issuable underlying the warrants held by the Master Fund, as applicable, and does not give effect to these beneficial ownership limitations. Accordingly, actual beneficial ownership, as calculated in accordance with Section 13(d) and Rule 13d-3 thereunder may be lower than as reflected herein. The address of Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.
- (5) Unless otherwise indicated, the address for each of our executive officers and directors is c/o 350 Technology Drive, Third Floor, Pittsburgh, PA 15219.
- (6) Represents (i) 1,500 shares of our common stock held directly by Todd P. Branning and (ii) 2,710 shares of our common stock underlying restricted stock units held by Todd P. Branning.
- (7) Represents (i) 13,379 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) 1,500 shares of our common stock held directly by Dov A. Goldstein, M.D.
- (8) Represents 4,153 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date held directly by Gerald J. McDougall.
- (9) Represents 13,379 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.
- (10) Represents (i) 13,379 shares of common stock issuable pursuant to stock options exercisable within 60 days after the Record Date, (ii) 1,387 shares of our common stock held by Eric I. Richman jointly with his spouse and (iii) 860 shares of our common stock held directly by Eric I. Richman.
- (11) Comprised of shares included under “Other Directors and Named Executive Officers,” as well as those of Dr. Stephan, our 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.

Based upon a review of the copies of the reports filed with the SEC we believe that our directors, officers and holders of more than 10% of our common stock complied with all applicable filing requirements during the 2022 fiscal year other than the following Form 4 filing: Mr. Richman on March 7, 2022. The Form 4 filing primarily relates to the purchase of Company common stock on the open market and was untimely filed.

STOCKHOLDER PROPOSALS

Stockholder proposals will be considered for inclusion in the Proxy Statement for the 2024 Annual Meeting in accordance with Rule 14a-8 under the Exchange Act, if they are received by the Company's Secretary, on or before April 17, 2024. If the date of the 2024 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 2024 Annual Meeting without inclusion of such proposal in our proxy materials for the 2024 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 2024 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 2024 Annual Meeting if notice thereof has been given or a public announcement thereof has been made, in the event that the date of the 2024 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 2024 Annual Meeting and (B) not later than the close of business on the later of (y) the 90th day prior to the 2024 Annual Meeting and (z) the 10th day following the day on which public announcement of the date of the 2024 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, 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 30, 2024.

Proposals and notices of intention to present proposals at the 2024 Annual Meeting should be addressed to the Secretary of NeuBase Therapeutics, Inc., 350 Technology Drive, Pittsburgh, Pennsylvania 15219. A nomination that does not comply with the requirements set forth in the Certificate of Incorporation and Bylaws will not be considered for presentation at the annual meeting. We intend to file a proxy statement and white proxy card with the SEC in connection with our solicitation of proxies for our 2024 annual meeting of stockholders.

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 2022 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 2022 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 September 8, 2023 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 27, 2023. 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 27, 2023.

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 27, 2023, 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 A. Stephan, Ph.D.
Chief Executive Officer
August 1, 2023
Pittsburgh, Pennsylvania

Appendix A

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

NeuBase Therapeutics, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the “**DGCL**”) (the “**Corporation**”), hereby certifies as follows:

The name of the Corporation is NeuBase Therapeutics, Inc. 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. The Corporation subsequently effected a reverse stock split on June 14, 2023.

The Amended and Restated Certificate of Incorporation in the form of Exhibit A attached hereto amends, restates, and integrates the provisions of the Amended and Restated Certificate of Incorporation filed with the Secretary of State of the State of Delaware on July 12, 2019, as amended on June 14, 2023.

The Amended and Restated Certificate of Incorporation in the form of Exhibit A attached hereto has been duly adopted in accordance with the provisions of Sections 211, 242 and 245 of the DGCL. The text of the Amended and Restated Certificate of Incorporation as heretofore amended or supplemented is hereby restated and further amended to read in its entirety as set forth in Exhibit A attached hereto. The Amended and Restated Certificate of Incorporation shall be effective upon its filing with the Secretary of State of the State of Delaware.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been signed this date of _____, 2023.

NEUBASE THERAPEUTICS, INC.

By: _____
Name:
Title: Chief Executive Officer

EXHIBIT A

**AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION OF
NEUBASE THERAPEUTICS, INC.**

**ARTICLE I
NAME**

The name of the corporation (the “*Corporation*”) is NeuBase Therapeutics, Inc.

**ARTICLE II
REGISTERED OFFICE AND AGENT**

The address of the Corporation’s registered office in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle, 19801. The name of its registered agent at such address is The Corporation Trust Company.

**ARTICLE III
PURPOSE AND DURATION**

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware (the “*DGCL*”). The Corporation is to have a perpetual existence.

**ARTICLE IV
CAPITAL STOCK**

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 June 14, 2023, each 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.

Section 2. Shares of Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Corporation (the “*Board of Directors*”) is hereby authorized to provide from time to time by resolution or resolutions for the creation and issuance, out of the authorized and unissued shares of Preferred Stock, of one or more series of Preferred Stock by filing a certificate (a “*Certificate of Designation*”) pursuant to the DGCL, setting forth such resolution and, with respect to each such series, establishing the designation of such series and the number of shares to be included in such series and fixing the voting powers (full or limited, or no voting power), preferences and relative, participating, optional or other special rights, and the qualifications, limitations and restrictions thereof, of the shares of each such series. Without limiting the generality of the foregoing, the resolution or resolutions providing for the

establishment of any series of Preferred Stock may, to the extent permitted by law, provide that such series shall be superior to, rank equally with or be junior to the Preferred Stock of any other series. The powers, preferences and relative, participating, optional and other special rights of each series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may be different from those of any and all other series at any time outstanding. Except as otherwise expressly provided in the resolution or resolutions providing for the establishment of any series of Preferred Stock, no vote of the holders of shares of Preferred Stock or Common Stock shall be a prerequisite to the issuance of any shares of any series of the Preferred Stock so authorized in accordance with this Amended and Restated Certificate of Incorporation. Unless otherwise provided in the Certificate of Designation establishing a series of Preferred Stock, the Board of Directors may, by resolution or resolutions, increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of such series and, if the number of shares of such series shall be so decreased, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

ARTICLE V BOARD OF DIRECTORS

For the management of the business and for the conduct of the affairs of the Corporation it is further provided that:

Section 1.

(a) The management of the business and the conduct of the affairs of the Corporation shall be vested in the Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed exclusively by one or more resolutions adopted from time to time by the Board of Directors. Except as otherwise expressly delegated by resolution of the Board of Directors, the Board of Directors shall have the exclusive power and authority to appoint and remove officers of the Corporation.

(b) Other than any directors elected by the separate vote of the holders of one or more series of Preferred Stock, the Board of Directors shall be and is divided into three classes, designated as Class I, Class II and Class III, as nearly equal in number as possible. Directors shall be assigned to each class in accordance with a resolution or resolutions adopted by the Board of Directors. At the first annual meeting of stockholders following the effectiveness of this Amended and Restated Certificate of Incorporation (the “*Qualifying Record Date*”), the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the Qualifying Record Date, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the Qualifying Record Date, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. Subject to the special rights of the holders of one or more series of Preferred Stock to elect directors, at each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this **Article V, Section 1(b)**, each director shall serve until his or her successor is duly elected and qualified or until his or her earlier death, resignation, disqualification, retirement or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(c) Subject to the special rights of the holders of one or more series of Preferred Stock to elect directors, the Board of Directors or any individual director may be removed from office at any time, but only for cause and only by the affirmative vote of the holders of sixty-six and two-thirds percent (66 $\frac{2}{3}$ %) of the voting power of all the then outstanding shares of voting stock of the Corporation with the power to vote at an election of directors (the “*Voting Stock*”).

(d) Subject to the special rights of the holders of one or more series of Preferred Stock to elect directors, any vacancies on the Board of Directors resulting from death, resignation, disqualification, retirement, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or

newly created directorships shall be filled by the stockholders, and except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum, or by a sole remaining director, and shall not be filled by the stockholders. Any director appointed in accordance with the preceding sentence shall hold office for a term that shall coincide with the remaining term of the class to which the director shall have been appointed and until such director's successor shall have been elected and qualified or until his or her earlier death, resignation, disqualification, retirement or removal.

Section 2.

(a) In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter or repeal Bylaws of the Corporation. In addition to any vote of the holders of any class or series of stock of the Corporation required by applicable law or by this Amended and Restated Certificate of Incorporation (including any Certificate of Designation in respect of one or more series of Preferred Stock), the adoption, amendment or repeal of the Bylaws of the Corporation by the stockholders of the Corporation shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66⅔%) of the voting power of all the then-outstanding shares of the Voting Stock, voting together as a single class.

(b) The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

ARTICLE VI STOCKHOLDERS

Section 1. Subject to the special rights of the holders of one or more series of Preferred Stock, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of the stockholders of the Corporation, and the taking of any action by written consent of the stockholders in lieu of a meeting of the stockholders is specifically denied.

Section 2. Subject to the special rights of the holders of one or more series of Preferred Stock, special meetings of the stockholders of the Corporation may be called, for any purpose or purposes, at any time by the Board of Directors, chief executive officer or president (in the absence of a chief executive officer), but such special meetings may not be called by stockholders or any other person or persons.

Section 3. Advance notice of stockholder nominations for the election of directors and of other business proposed to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws of the Corporation.

ARTICLE VII LIABILITY AND INDEMNIFICATION

Section 1. A director or officer of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, except for liability (i) for any breach of the director's or officer's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) with respect to a director, under Section 174 of the DGCL, or (iv) for any transaction from which the director or officer derived an improper personal benefit. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors or officers, then the liability of a director or officer of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended, automatically and without further action, upon the date of such amendment.

Any repeal or modification of the foregoing paragraph by the stockholders of the Corporation shall not adversely affect any right or protection of a director or officer of the Corporation existing at the time of such repeal or modification.

Section 2. The Corporation, to the fullest extent permitted by law, shall indemnify and advance expenses to any person made or threatened to be made a party to an action, suit or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that he or she, or his or her testator or

intestate, is or was a director or officer of the Corporation or any predecessor of the Corporation, or serves or served at any other enterprise as a director or officer at the request of the Corporation or any predecessor to the Corporation.

Section 3. The Corporation, to the fullest extent permitted by law, may indemnify and advance expenses to any person made or threatened to be made a party to an action, suit or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that he or she, or his or her testator or intestate, is or was an employee or agent of the Corporation or any predecessor of the Corporation, or serves or served at any other enterprise as an employee or agent at the request of the Corporation or any predecessor to the Corporation.

Section 4. Neither any amendment nor repeal of this **Article VII**, nor the adoption by amendment of this Amended and Restated Certificate of Incorporation of any provision inconsistent with this **Article VII**, shall eliminate or reduce the effect of this **Article VII** in respect of any matter occurring, or any action or proceeding accruing or arising (or that, but for this **Article VII**, would accrue or arise) prior to such amendment or repeal or adoption of an inconsistent provision.

ARTICLE VIII EXCLUSIVE FORUM

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any action asserting a claim of breach of fiduciary duty owed by any director, officer, employee, agent or stockholder of the Corporation to the Corporation or the Corporation's stockholders, creditors or other constituents, (c) any action asserting a claim arising pursuant to any provision of the General Corporation Law of the State of Delaware or this Amended and Restated Certificate of Incorporation or the Bylaws of the Corporation, or (d) any action asserting a claim governed by the internal affairs doctrine, in each case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein; provided that, the provisions of this **Article VIII** will not apply to suits brought to enforce any liability or duty created by the Securities Act of 1933, as amended, the Securities and Exchange Act of 1934, as amended, or any other claim for which the federal courts have exclusive jurisdiction; and provided further that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state or federal court sitting in the State of Delaware. To the fullest extent permitted by applicable law, any person or entity purchasing or otherwise acquiring or holding any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this **Article VIII**. Notwithstanding any other provisions of law, this Amended and Restated Certificate of Incorporation or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon shall be required to amend or repeal, or to adopt any provision inconsistent with, this **Article VIII**. If any provision or provisions of this **Article VIII** shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this **Article VIII** (including, without limitation, each portion of any sentence of this **Article VIII** containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

ARTICLE IX AMENDMENTS

Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the Voting Stock required by law or by this Amended and Restated Certificate of Incorporation (including any Certificate of Designation in respect of one or more series of Preferred Stock), the affirmative vote of the holders of at least sixty-six and two-thirds percent (66⅔%) of the voting power of all of the then-outstanding shares of the Voting Stock, voting together as a single class, shall be required to alter, amend or repeal **Articles V, VI, VII and VIII** and this **Article IX**.



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

YOUR VOTE IS IMPORTANT! PLEASE VOTE BY:

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

NeuBase Therapeutics, Inc.

Annual Meeting of Stockholders

For Stockholders of Record as of

August 4, 2023

DATE: Thursday, September 28, 2023**TIME:** 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
1. To elect one Class III director, nominated by our Board of Directors, to serve until our 2026 Annual Meeting of Stockholders and until his successor is duly elected and qualified;	FOR <input type="checkbox"/>	WITHHOLD <input type="checkbox"/>		 FOR
1.01 Franklyn G. Prendergast, M.D., Ph.D.				
2. To ratify the selection of Marcum LLP ("Marcum") as our independent registered public accounting firm for the fiscal year ending December 31, 2023;	FOR <input type="checkbox"/>	AGAINST <input type="checkbox"/>	ABSTAIN <input type="checkbox"/>	FOR
3. To conduct an advisory (non-binding) vote on executive compensation; and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FOR
4. To approve an amendment and restatement of the Company's Amended and Restated Certificate of Incorporation, as amended, to reflect Delaware law provisions allowing officer exculpation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FOR

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