
PRELIMINARY PROXY STATEMENT SUBJECT TO COMPLETION – DATED MAY 2, 2022

**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**

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(c)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to Rule 14a-11(c) or rule 14a-12

ABEONA THERAPEUTICS INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

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

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

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

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11:

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

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

(1) Amount previously paid:

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

(3) Filing Party:

(4) Date Filed:

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PRELIMINARY PROXY STATEMENT SUBJECT TO COMPLETION – DATED MAY 2, 2022

ABEONA THERAPEUTICS INC.
1330 Avenue of the Americas, 33rd Floor
New York, NY 10019
646-813-4701

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS
TO BE HELD AT 10:00 A.M. ET ON JUNE 14, 2022

May [], 2022

Dear Stockholders of Abeona Therapeutics Inc.:

The Board of Directors (the “Board”) of Abeona Therapeutics Inc., a Delaware corporation (the “Company”), has called for a Special Meeting of stockholders (the “Special Meeting”). The Special Meeting will be held entirely online. You will be able to attend and participate in the Special Meeting online by visiting www.virtualshareholdermeeting.com/ABEO2022SM where you will be able to listen to the meeting live, submit questions and vote.

The Special Meeting has been called by the Board to submit to stockholders for approval the following matters:

1. To approve an amendment to the Restated Certificate of Incorporation of the company to effect a reverse stock split of our common stock at a ratio to be determined by the Board within a range of one-for-10 to one-for-80 (or any number in between), without reducing the authorized number of shares of our common stock, to be effected in the sole discretion of the Board at any time within one year of the date of the Special Meeting without further approval or authorization of our stockholders; and
2. To consider and vote upon an adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

Pursuant to the Company’s Amended and Restated Bylaws (the “Bylaws”), the Board has fixed the close of business on May 3, 2022 as the record date for determination of the stockholders entitled to vote at the Special Meeting and any adjournments or postponements thereof. Please complete, sign and submit your proxy, which is solicited by the Board, as soon as possible so that your shares can be voted at the Special Meeting in accordance with your instructions. You can ensure that your shares are voted at the Special Meeting by voting via the internet or by completing, signing and returning the enclosed proxy. If you do attend the Special Meeting, you may then withdraw your proxy and vote your shares in person. In any event, you may revoke your proxy prior to its exercise. Shares represented by proxies that are returned properly signed but unmarked will be voted in favor of proposals made by us.

This Notice of Special Meeting of Stockholders, Proxy Statement and the proxy card are available online at: www.virtualshareholdermeeting.com/ABEO2022SM.

BY ORDER OF THE BOARD OF DIRECTORS,

Vishwas Seshadri

President and Chief Executive Officer

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PRELIMINARY PROXY STATEMENT SUBJECT TO COMPLETION – DATED MAY 2, 2022

ABEONA THERAPEUTICS INC.
1330 Avenue of the Americas, 33rd Floor
New York, NY 10019
(646) 813-4701

SPECIAL MEETING PROXY STATEMENT

**IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE
SPECIAL MEETING OF STOCKHOLDERS TO BE HELD AT 10:00 A.M. ET ON JUNE 14, 2022**

The Notice of Special Meeting, Proxy Statement and Proxy are available at:
www.virtualshareholdermeeting.com/ABEO2022SM.

We are making these proxy materials available to you in connection with the solicitation of proxies by the Board of Directors (the “Board”) of Abeona Therapeutics Inc. (“Abeona” or the “Company”) for a Special Meeting of Stockholders (the “Special Meeting”) and for any adjournment or postponement of the Special Meeting. The mailing of the notice of internet availability of these proxy materials will commence on or about May [], 2022.

The Special Meeting will be held entirely online. You will be able to attend and participate in the Special Meeting online by visiting www.virtualshareholdermeeting.com/ABEO2022SM. In this Proxy Statement, “we,” “us,” “our,” “Abeona” and the “Company” refer to Abeona Therapeutics Inc.

This Proxy Statement is being made available to you because you own shares of our common stock, par value \$0.01 per share (the “Common Stock”), Series A Convertible Redeemable Preferred Stock, par value \$0.01 per share (the “Series A Preferred Stock”), or Series B Convertible Redeemable Preferred Stock, par value \$0.01 per share (the “Series B Preferred Stock” and together with the Series A Preferred Stock, the “Preferred Stock”), as of the record date, which entitles you to vote at the Special Meeting. By use of a proxy, you can vote whether or not you attend the Special Meeting. This Proxy Statement describes the matters we would like you to vote on and provides information on those matters.

QUESTIONS AND ANSWERS ABOUT THE SPECIAL MEETING

Q: What is the purpose of the Special Meeting?

A: The purpose of the Special Meeting is to hold a stockholder vote on the following matters:

1. To approve an amendment to the Restated Certificate of Incorporation of the Company (the "Charter") to effect a reverse stock split of our Common Stock at a ratio to be determined by the Board within a range of one-for-10 to one-for-80 (or any number in between), without reducing the authorized number of shares of our Common Stock, to be effected in the sole discretion of the Board at any time within one year of the date of the Special Meeting without further approval or authorization of our stockholders (the "Reverse Stock Split"); and
2. To consider and vote upon an adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

We refer herein to Proposal No. 1 as the "Reverse Stock Split Proposal" and to Proposal No. 2 as the "Adjournment Proposal."

The Board does not know of any other matters to be presented at the Special Meeting. However, if any other matter should be properly presented at the Special Meeting upon which a vote properly may be taken, shares represented by all proxies received by the Board will be voted with respect thereto in accordance with the best judgment of Vishwas Seshadri and Joseph Vazzano, each of whom is named as attorney-in-fact in the proxies.

Q: Who may attend and vote at the Special Meeting?

A: Only stockholders who own our Common Stock, Series A Preferred Stock, or Series B Preferred Stock, as of the close of business on May 3, 2022, the record date for the Special Meeting (the "Record Date"), will be entitled to attend and vote at the Special Meeting. At the discretion of management, we may also permit certain individuals to attend the Special Meeting, including professional service providers and our employees.

On May 2, 2022, the Company closed a preferred stock offering, in which the Company issued 1,000,006 shares of Series A Preferred Stock with an aggregate stated value of \$20 million and 250,005 shares of Series B Preferred Stock with an aggregate stated value of \$5 million. Total gross proceeds from the offering, before deducting the placement agent's fees, discounts and other estimated offering expenses, are approximately \$25 million. Each share of Preferred Stock has a purchase price of \$19.00, representing an original issue discount of 5% of the \$20.00 stated value of each share. Each share of Preferred Stock is convertible into shares of Common Stock at an initial conversion price of \$0.45 per share.

You do not need to attend the Special Meeting to vote your shares. Instead, you may vote your shares by marking, signing, dating and returning the enclosed proxy card or voting through the internet.

Q: How many shares may be voted at the Special Meeting?

A: Each share of our Common Stock outstanding on the Record Date entitles the holder thereof to one vote on each matter submitted to the stockholders at the Special Meeting. As of the Record Date, there were [147,019,899] shares of our Common Stock issued and outstanding. Holders of Common Stock, Series A Preferred Stock and Series B Preferred Stock will vote on the Reverse Stock Split Proposal as a single class. Only the holders of Common Stock and Series A Preferred Stock are entitled to vote on the Adjournment Proposal.

Each share of Series A Preferred Stock outstanding on the Record Date has a number of votes equal to the number of shares of Common Stock issuable upon conversion of such share (whether or not such shares are then convertible). Accordingly, as of the Record Date, each share of Series A Preferred Stock has approximately 44.444 votes, which is determined by dividing \$20.00, the stated value of one share of Series A Preferred Stock, by \$0.45, the conversion price. As of the Record Date, there were 1,000,006 shares of our Series A Preferred Stock issued and outstanding, convertible into an aggregate of 44,444,710 shares of Common Stock. The holders of the Series A Preferred Stock have agreed to not transfer their shares of Series A Preferred Stock until after the Special Meeting, attend the Special Meeting, vote all shares of Series A Preferred Stock in favor of the Reverse Stock Split Proposal, and, upon request by the Company, grant the Company or its designee an irrevocable proxy to vote all shares of Series A Preferred Stock in favor of the Reverse Stock Split Proposal.

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Each share of Series B Preferred Stock outstanding on the Record Date entitles the holder thereof to 15,000 votes on the Reverse Stock Split Proposal. As of the Record Date, there were 250,005 shares of our Series B Preferred Stock issued and outstanding, convertible into an aggregate of 11,111,333 shares of Common Stock. The holders of the Series B Preferred Stock have agreed to not transfer their shares of Series B Preferred Stock until after the Special Meeting, attend the Special Meeting, vote all shares of Series B Preferred Stock in the same proportion as the aggregate shares of Common Stock (excluding any shares of Common Stock that are not voted) and Series A Preferred Stock are voted on the Reverse Stock Split Proposal and, upon request by the Company, grant the Company or its designee an irrevocable proxy to vote the shares of Series B Preferred Stock in accordance with the above. As an example, if 70% of the aggregate votes cast by Common Stock and Series A Preferred Stock voting on the Reverse Stock Split Proposal are voted in favor thereof and 30% of the aggregate votes cast by Common Stock and Series A Preferred Stock voting on the Reverse Stock Split Proposal are voted against such Proposal, then 70% of the votes entitled to be cast by Series B Preferred Stock will be cast in favor of the Proposal and 30% of such votes will be cast against the Proposal.

The allocation of the voting power with respect to the Reverse Stock Split Proposal is illustrated in the following table:

	Number of Shares	Number of Votes per share	Aggregate Number of Votes	Percentage of Total Voting Power
Common Stock	[147,019,899]	1	[147,019,899]	76.8%
Series A Preferred Stock	1,000,006	44,444	44,444,710	23.2%
Series B Preferred Stock⁽¹⁾	250,005	15,000	3,750,075,000	—

(1) Shares of Series B Preferred Stock will be voted in a manner that “mirrors” the proportions of the votes of the shares of Common Stock (excluding any shares of Common Stock that are not voted) and Series A Preferred Stock.

Q: How do I vote?

- A: If you were a holder of our Common Stock or Preferred Stock as of the Record Date, you may vote in person at the Special Meeting, vote by proxy through the internet or vote by proxy using the enclosed proxy card. To vote through the internet, go to www.virtualshareholdermeeting.com/ABEO2022SM and complete an electronic proxy card. You will be asked for a Control Number, which has been provided with the Notice of Internet Availability.

Whether you plan to attend the Special Meeting or not, we urge you to vote by proxy to ensure your vote is counted. Voting by proxy will not affect your right to attend the Special Meeting and vote. If you vote via the internet or properly complete your proxy card and submit it to us in time, the “proxy” (one of the individuals named on the proxy card) will vote your shares as you have directed. If you sign the proxy card but do not make specific choices, the proxy will vote your shares as recommended by the Board and, as to any other matters properly brought before the Special Meeting, in the sole discretion of the proxy.

Q: How will my shares be voted at the Special Meeting?

- A: If you vote by proxy, the individuals named on the proxy, or their substitutes, will vote your shares in the manner you indicate. If a beneficial owner who holds shares in street name does not provide specific voting instructions to their brokerage firm, bank, broker dealer or other nominee, under the rules of certain securities exchanges, the brokerage firm, bank, broker dealer or other nominee holding those shares may generally vote as the nominee determines in its discretion on behalf of the beneficial owner on routine matters but cannot vote on non-routine matters, the latter of which results in “broker non-votes.” The Proposals involve matters considered routine under the applicable rules. Accordingly, if you do not give instructions to your broker, the broker may vote your shares in its discretion on the Proposals and therefore no broker non-votes are expected in connection with the Proposals.

If you date, sign, and return the proxy card without indicating your instructions, your shares will be voted as follows:

- **Proposal No. 1. “FOR”** an amendment to the Restated Certificate of Incorporation to effect a reverse stock split of our Common Stock at a ratio to be determined by the Board of Directors within a range

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of one-for-10 to one-for-80 (or any number in between), without reducing the authorized number of shares of our Common Stock, to be effected in the sole discretion of the Board of Directors at any time within one year of the date of the Special Meeting without further approval or authorization of our stockholders; and

- **Proposal No. 2. “FOR”** an adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

You may revoke or change your proxy at any time before it is exercised by delivering to us a signed proxy with a date later than your previously delivered proxy, by voting via the live webcast at the Special Meeting, or by sending a written revocation of your proxy addressed to our Corporate Secretary at our principal executive office. Your latest dated proxy card is the one that will be counted.

Q: What is the difference between holding shares as a stockholder of record and as a beneficial owner?

A: Most stockholders hold their shares through a bank, broker or other financial intermediary rather than directly in their own name. As summarized below, there are some distinctions between shares held of record and shares held beneficially.

Stockholder of Record: If your shares are registered directly in your name with the Company’s transfer agent, American Stock Transfer & Trust Company (the “Transfer Agent”), you are considered, with respect to those shares, the stockholder of record. As the stockholder of record, you have the right to grant your proxy directly to the Company or to vote your shares in person at the Special Meeting.

Beneficial Owner: If you hold shares in a stock brokerage account or through a bank or other financial intermediary, you are considered the beneficial owner of shares held in street name. Your bank, broker or other financial intermediary is considered, with respect to those shares, the stockholder of record. As the beneficial owner, you have the right to direct your bank, broker or other financial intermediary on how to vote your shares, but because you are not the stockholder of record, you may not vote these shares in person at the Special Meeting unless you obtain a signed proxy from the stockholder of record giving you the right to vote the shares. As a beneficial owner, you are, however, welcome to attend the Special Meeting.

Q: What are the recommendations of the Board?

A: The Board recommends that you vote:

1. **“FOR”** the proposed amendment to the Restated Certificate of Incorporation to effect a reverse stock split of our Common Stock at a ratio to be determined by the Board within a range of one-for-10 to one-for-80 (or any number in between), without reducing the authorized number of shares of our Common Stock, to be effected in the sole discretion of the Board at any time within one year of the date of the Special Meeting without further approval or authorization of our stockholders.
2. **“FOR”** an adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

Q: What constitutes a quorum at the Special Meeting?

A: A quorum is necessary to hold a valid meeting. The presence, via the live webcast or by proxy, of holders of our capital stock entitled to cast one-third of all the votes entitled to be cast at the Special Meeting constitutes a quorum for the transaction of business. Abstentions will be counted as present for purposes of establishing a quorum. As described above, no broker non-votes are expected in connection with the Proposals. A “broker non-vote” occurs when a broker, bank or other holder of record holding shares for a beneficial owner properly executes and returns a proxy without voting on a particular proposal because such holder of record does not have discretionary voting power for that particular item and has not received instructions from the beneficial owner. For purposes of the Special Meeting, a quorum requires 67,525,314 votes, or one-third of the aggregate number of our outstanding Common Stock and Preferred Stock (on an as-converted basis). The Series A Preferred Stock is convertible into 44,444,710 shares of Common Stock in the aggregate, and the Series B Preferred Stock is convertible into 11,111,333 shares of Common Stock in the aggregate.

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Q: What vote is required to approve each proposal?

A: The proposals to be voted upon at the Special Meeting have the following vote requirement:

Proposal No. 1: Proposed Amendment to the Charter to effect the reverse stock split of our Common Stock. Stockholders may vote “FOR” or “AGAINST” or may “ABSTAIN” on the Reverse Stock Split Proposal to amend the Company’s Charter to effect a reverse stock split at an exchange ratio within a range of one-for-10 to one-for-80 (or any number in between), without reducing the authorized number of shares of our common stock. The affirmative vote of the holders of a majority of the outstanding voting power of shares of our Common Stock and Preferred Stock entitled to vote on the Reverse Stock Split Proposal will be required to approve the amendment.

Any abstention by a holder of shares of our Common Stock on Proposal No. 1 shall have the effect, with respect to such shares, of a vote AGAINST Proposal 1. Since the Series B Preferred Stock will mirror only votes cast, abstentions by holders of our Common Stock, which would ordinarily have the effect of a vote against the Reverse Stock Split Proposal, will not have any effect on the votes cast by the holders of Series B Preferred Stock on Proposal No. 1.

Proposal No. 2: Proposed adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1. Stockholders may vote “FOR” or “AGAINST” or may “ABSTAIN” on the Adjournment Proposal. The approval of the Adjournment Proposal requires the affirmative vote of the holders of a majority of the voting power of the Common Stock and Series A Preferred Stock represented in person or by proxy at the Special Meeting and actually voting on the subject matter. Abstentions will have no effect on the outcome of Proposal No. 2.

Q: May I change my vote?

A: Yes. You may change your proxy instructions or revoke your proxy at any time prior to the vote at the Special Meeting. For shares held directly in your name, you may accomplish this by: (a) delivering a written notice of revocation to the Secretary of the Company or the Secretary’s designated agent bearing a later date than the proxy being revoked, (b) signing and delivering a later dated written proxy relating to the same shares, or (c) attending the Special Meeting and voting in person (although attendance at the Special Meeting will not in and of itself constitute a revocation of a proxy). For shares held in street name, you may change your vote by submitting new voting instructions to your broker, trustee or nominee.

Q: Who is paying for this proxy solicitation?

A: We will pay the cost of soliciting proxies. Proxies may be solicited on behalf of the Company by directors, officers or employees of Abeona in person or by telephone, email or other electronic means. As required by the Securities and Exchange Commission (the “SEC”), we also will reimburse brokerage firms and other custodians, nominees and fiduciaries for their expenses incurred in sending proxies and proxy materials. We will pay Kingsdale Advisors an estimated fee of approximately \$20,000 plus costs and expenses. In addition, Kingsdale Advisors and certain related persons will be indemnified against certain liabilities arising out of or in connection with the engagement.

Q: Am I entitled to dissenters’ rights?

A: No dissenters’ rights are available under the Delaware General Corporation Law, our Charter, or our Bylaws to any stockholder with respect to any of the matters proposed to be voted on at the Special Meeting.

Q: How can I find out the results of the voting at the Special Meeting?

A: Preliminary voting results will be announced at the Special Meeting. In addition, final voting results will be published in a Current Report on Form 8-K that we expect to file within four business days after the completion of the Special Meeting.

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SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The Company has determined beneficial ownership as of April 27, 2022 in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, these rules require that the Company include shares of Common Stock issuable pursuant to the vesting of restricted stock units and the exercise of stock options and warrants that are either immediately exercisable or exercisable within 60 days of April 27, 2022. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership Common Stock ⁽¹⁾	Percent of Common Stock ⁽²⁾
Directors and Named Executive Officers:		
Leila Alland, M.D. ⁽³⁾	175,349	*
Mark J. Alvino ⁽⁴⁾	180,349	*
Michael Amoroso ⁽⁵⁾	1,045,277	*
Faith L. Charles ⁽³⁾	175,349	*
Paul Mann ⁽⁶⁾	87,674	*
Christine Silverstein ⁽⁷⁾	573,120	*
Todd Wider, M.D. ⁽⁶⁾	87,674	*
Donald A. Wuchterl ⁽³⁾	175,349	*
Vishwas Seshadri ⁽⁸⁾	450,000	*
Edward Carr ⁽⁹⁾	183,183	*
Brendan O'Malley ⁽¹⁰⁾	305,402	*
Joseph Vazzano ⁽¹¹⁾	200,000	*
All Directors and Named Executive Officers as a group (consisting of 12 persons)	3,638,726	2.5%
5% Beneficial Owners:		
Steven H. Rouhandeh ⁽¹²⁾	14,052,364	9.6%
Adage Capital Partners, L.P. ⁽¹³⁾	8,007,272	5.4%

* Less than 1%

- (1) Includes outstanding shares of Common Stock held plus all shares of Common Stock issuable upon exercise of options, warrants and other rights exercisable within 60 days after April 27, 2022.
- (2) Based upon 147,019,899 shares of Common Stock issued and outstanding as of April 27, 2022.
- (3) Dr. Alland, Ms. Charles and Mr. Wuchterl are each known to beneficially own an aggregate of 77,181 shares of our Common Stock and presently exercisable options for the purchase of 98,168 shares pursuant to the 2015 Equity Incentive Plan.
- (4) Mr. Alvino is known to beneficially own an aggregate of 82,181 shares of our Common Stock and presently exercisable options for the purchase of 98,168 shares pursuant to the 2015 Equity Incentive Plan.
- (5) Mr. Amoroso is known to beneficially own an aggregate of 604,637 shares of our Common Stock and presently exercisable options for the purchase of 440,640 shares of our Common Stock pursuant to the 2015 Equity Incentive Plan.
- (6) Mr. Mann and Dr. Wider are each known to beneficially own an aggregate of 38,590 shares of our Common Stock and presently exercisable options for the purchase of 49,084 shares pursuant to the 2015 Equity Incentive Plan.
- (7) Ms. Silverstein is known to beneficially own an aggregate of 118,590 shares of our Common Stock and presently exercisable options for the purchase of 454,530 shares of our Common Stock pursuant to the 2015 Equity Incentive Plan.
- (8) Dr. Seshadri is known to beneficially own an aggregate of 350,000 shares of our Common Stock, and has options to purchase 100,000 shares of our Common Stock that vest within 60 days from April 27, 2022.
- (9) Mr. Carr is known to beneficially own an aggregate of 104,669 shares of our Common Stock and presently exercisable options for the purchase of 78,514 shares of our Common Stock pursuant to the 2015 Equity Incentive Plan.
- (10) Dr. O'Malley is known to beneficially own an aggregate of 204,750 shares of our Common Stock and presently exercisable options for the purchase of 100,652 shares of our Common Stock pursuant to the 2015 Equity Incentive Plan.
- (11) Mr. Vazzano is known to beneficially own an aggregate of 200,000 shares of our Common Stock.
- (12) Beneficial ownership for Mr. Rouhandeh includes (i) 503,590 shares held directly by Mr. Rouhandeh, (ii) presently exercisable options for the purchase of 1,024,114 shares pursuant to the 2015 Equity Incentive Plan, (iii) presently exercisable options for the purchase of

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80,000 shares pursuant to the 2005 Equity Incentive Plan, (iv) 229 shares held by the Sophie C. Rouhandeh Trust, 229 shares held by the Chloe H. Rouhandeh Trust, and 714 shares held by the SHR Family Trust (collectively, the "Trusts"), and (v) 11,079,292 shares and 1,364,196 shares held by each of SCO Capital Partners LLC and Beach Capital LLC, respectively. Mr. Rouhandeh serves as trustee of each of the Trusts. He is also the Chief Investment Officer and managing member of SCO Capital Partners LLC and managing member of Beach Capital LLC. The address for each of Mr. Rouhandeh, SCO Capital Partners LLC and Beach Capital LLC is 1330 Avenue of the Americas, 33rd Floor, New York, NY 10019. Mr. Rouhandeh disclaims his beneficial ownership of such shares except to the extent of his pecuniary interest therein.

- (13) Based on information set forth in a Schedule 13G/A filed with the SEC on February 10, 2022 by Adage Capital Partners, L.P. and related entities. Adage Capital Partners L.P.'s address is 200 Clarendon Street, 52nd Floor, Boston, MA 02116.

To our knowledge, except as noted above, no person or entity is the beneficial owner of more than 5% of the voting power of the Company's Common Stock.

PROPOSALS TO BE ACTED UPON AT THE SPECIAL MEETING

PROPOSAL NO. 1 – APPROVAL OF THE AMENDMENT TO RESTATED CERTIFICATE OF INCORPORATION (OF THE COMPANY TO EFFECT THE REVERSE STOCK SPLIT)

General

At the Special Meeting, our stockholders will be asked to approve a proposal to amend the Restated Certificate of Incorporation (the “Charter”) of the Company to effect a reverse stock split of the issued and outstanding shares of our Common Stock, at an exchange ratio to be determined by the Board in the range of between one-for-10 to one-for-80 (or any number in between) shares outstanding. Upon the effectiveness of such amendment to the Charter to effect the reverse stock split, or the reverse stock split effective time, the issued and outstanding shares of our Common Stock immediately prior to the reverse stock split effective time will be reclassified into a smaller number of shares such that a Company stockholder will own one new share of our Common Stock for each 10 to 80 (or any number in between) shares of issued Common Stock held by such stockholder immediately prior to the reverse stock split effective time, as specified. If the Reverse Stock Split is implemented, pursuant to the amendment to the Company’s Charter that gives effect to the Reverse Stock Split the total number of authorized shares of Common Stock will remain at the current level of 200,000,000 shares.

By approving this Proposal No. 1, Company stockholders will: (a) approve an amendment to the Charter pursuant to which any whole number of issued and outstanding shares of Common Stock between and including 10 to 80 (or any number in between) could be combined and reclassified into one share of Common Stock; and (b) authorize the Company’s Board to file only one such amendment, as determined by the Board in its sole discretion, and to abandon each amendment not selected by the Board. Should the Company receive the required stockholder approval for this Proposal No. 1, and following such stockholder approval, the Board determines that effecting the reverse stock split is in the best interests of Company and its stockholders, the reverse stock split will become effective as specified in the amendment filed with the Secretary of State of the State of Delaware. The amendment filed thereby will contain the number of shares selected by the Board within the limits set forth in this Proposal No. 1 to be combined and reclassified into one share of our Common Stock. Accordingly, upon the effectiveness of the amendment to the Charter to effect the reverse stock split, or the reverse stock split effective time, every 10 to 80 shares (or any number in between) of our Common Stock outstanding immediately prior to the reverse stock split effective time will be combined and reclassified into one share of our Common Stock.

The amendment to the Charter to effect the reverse stock split, as more fully described below, will effect the reverse stock split but will not change the number of authorized shares of our Common Stock or Preferred Stock, or the par value of our Common Stock or Preferred Stock.

The form of this proposed certificate of amendment to the Charter is attached to this Proxy Statement as Appendix A.

Notwithstanding approval of this Proposal No. 1 by Company stockholders, the Board may, in its sole discretion, abandon the proposed amendment and determine prior to the effectiveness of any filing with the Secretary of State of the State of Delaware not to effect the reverse stock split, as permitted under Section 242(c) of the Delaware General Corporation Law.

Outstanding Shares

Our Charter currently authorizes us to issue a maximum of 200,000,000 shares of Common Stock, par value \$0.01 per share, and 2,000,000 shares of preferred stock. Our issued and outstanding securities as of the Record Date are as follows:

- [147,019,899] shares of Common Stock;
and
- 1,250,011 shares of Preferred Stock.

Purpose

The Board approved the proposal to amend the Charter to effect a reverse stock split for the following reasons:

- the Board believes effecting the reverse stock split will result in an increase in the minimum bid price of our Common Stock and allow the Company to have its Common Stock remain listed on The Nasdaq Capital Market;

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- the Board believes that the increase in the number of available shares of Common Stock following the Reverse Stock Split will provide the Company with the ability to support its future anticipated growth and would provide greater flexibility to consider and respond to future business opportunities and needs as they arise, including equity financings and stock-based acquisitions of new technology and product development candidates;
- the Board believes a higher stock price may help generate investor interest in the Company and help the Company attract and retain employees.

If the reverse stock split successfully increases the per share price of our Common Stock, the Board also believes this increase may increase trading volume in our Common Stock and facilitate future financings by the Company.

Issuance of Preferred Stock

On May 2, 2022, the Company closed a preferred stock offering, in which the Company issued 1,000,006 shares of Series A Preferred Stock with an aggregate stated value of \$20 million and 250,005 shares of Series B Preferred Stock with an aggregate stated value of \$5 million. Total gross proceeds from the offering, before deducting the placement agent's fees and other estimated offering expenses, is approximately \$25 million. Each share of Preferred Stock has a purchase price of \$19.00, representing an original issue discount of 5% of the \$20.00 stated value of each share. Each share of Preferred Stock is convertible into shares of Common Stock at an initial conversion price of \$0.45 per share.

Each share of Series A Preferred Stock outstanding on the Record Date has a number of votes equal to the number of shares of Common Stock issuable upon conversion of such share (whether or not such shares are then convertible). Accordingly, as of the Record Date, each share of Series A Preferred Stock has approximately 44.444 votes, which is determined by dividing \$20.00, the stated value of one share of Series A Preferred Stock, by \$0.45, the conversion price. As of the Record Date, there were 1,000,006 shares of our Series A Preferred Stock issued and outstanding, convertible into an aggregate of 44,444,710 shares of Common Stock. The holders of the Series A Preferred Stock have agreed to not transfer their shares of Series A Preferred Stock until after the Special Meeting, attend the Special Meeting, vote all shares of Series A Preferred Stock in favor of the Reverse Stock Split Proposal, and, upon request by the Company, grant the Company or its designee an irrevocable proxy to vote all shares of Series A Preferred Stock in favor of the Reverse Stock Split Proposal.

Each share of Series B Preferred Stock outstanding on the Record Date entitles the holder thereof to 15,000 votes on the Reverse Stock Split. As of the Record Date, there were 250,005 shares of our Series B Preferred Stock issued and outstanding, convertible into an aggregate of 11,111,333 shares of Common Stock. The holders of the Series B Preferred Stock have agreed to not transfer their shares of Series B Preferred Stock until after the Special Meeting, attend the Special Meeting, vote all shares of Series B Preferred Stock in the same proportion as the aggregate shares of Common Stock (excluding any shares of Common Stock that are not voted) and Series A Preferred Stock are voted on the Reverse Stock Split Proposal and, upon request by the Company, grant the Company or its designee an irrevocable proxy to vote the shares of Series B Preferred Stock in accordance with the above. As an example, if 70% of the aggregate votes cast by Common Stock and Series A Preferred Stock voting on the Reverse Stock Split Proposal are voted in favor thereof and 30% of the aggregate votes cast by Common Stock and Series A Preferred Stock voting on the Reverse Stock Split Proposal are voted against such Proposal, then 70% of the votes entitled to be cast by Series B Preferred Stock will be cast in favor of the Proposal and 30% of such votes will be cast against the Proposal.

Nasdaq Requirements for Continued Listing

As previously disclosed in our Current Report on Form 8-K filed on November 19, 2021, the Company received a deficiency letter from the Nasdaq Stock Market ("Nasdaq") notifying the Company that the closing bid price for the Common Stock was below the minimum \$1.00 per share requirement for 30 consecutive business days for continued inclusion on The Nasdaq Capital Market pursuant to Nasdaq Listing Rule 5550(a)(2) (the "Bid Price Requirement"), and the Company has been provided an initial period of 180 calendar days to regain compliance with the Bid Price Requirement. To regain compliance with the Bid Price Requirement, the closing bid price for the Common Stock must be at least \$1.00 for a minimum of 10 consecutive business days.

One of the effects of the reverse stock split will be to effectively increase the proportion of authorized shares that are unissued relative to those that are issued. This could result in the Company's management being able to issue more

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shares without further stockholder approval. The reverse stock split will not affect the number of authorized shares of Company's capital stock that will continue to be authorized pursuant to the Charter, as amended.

The Board has considered the potential harm to us if we were not able to regain compliance with the Bid Price Requirement, which would result in our Common Stock being delisted from the Nasdaq Capital Market. If our Common Stock were delisted from the Nasdaq Capital Market, trading of our Common Stock would most likely take place on an over-the-counter market established for unlisted securities, such as the Pink Sheets or the OTC Bulletin Board. An investor would likely find it less convenient to sell, or to obtain accurate quotations in seeking to buy, our Common Stock on an over-the-counter market. As a result, many investors would likely not buy or sell our Common Stock due to difficulty in accessing over-the-counter markets, policies preventing them from trading in securities not listed on a national exchange or other reasons. In addition, as a delisted security, our Common Stock would be subject to SEC rules regarding "penny stock," which impose additional disclosure requirements on broker-dealers. The regulations relating to penny stocks, coupled with the typically higher cost per trade to the investor of penny stocks due to factors such as broker commissions generally representing a higher percentage of the price of a penny stock than of a higher-priced stock, would further limit the ability of investors to trade in our Common Stock. For these reasons and others, delisting would likely adversely affect the liquidity, trading volume and price of our Common Stock, causing the value of an investment in us to decrease and having an adverse effect on our business, financial condition and results of operations, including our ability to attract and retain qualified employees and to raise capital.

The Board believes that a reverse stock split is a potentially effective means for the Company to maintain compliance with Nasdaq Listing Rules and to avoid, or at least mitigate, the likely adverse consequences of our Common Stock being delisted from the Nasdaq Capital Market by producing the immediate effect of increasing the bid price of our Common Stock. The reverse stock split is also expected to enable the Company to support its anticipated growth, provide greater flexibility to consider and respond to future business opportunities and to recruit, retain and reward key employees.

Potential Increased Investor Interest

On April 28, 2022, our Common Stock closed at \$0.22 per share. An investment in our Common Stock may not appeal to brokerage firms that are reluctant to recommend lower-priced securities to their clients. Investors may also be dissuaded from purchasing lower-priced stocks because the brokerage commissions, as a percentage of the total transaction, tend to be higher for such stocks. Moreover, analysts at many brokerage firms do not monitor the trading activity or otherwise provide research coverage of lower-priced stocks. Also, our Board believes that most investment funds are reluctant to invest in lower-priced stocks.

There are risks associated with the reverse stock split, including that the reverse stock split may not result in an increase in the per share price of our Common Stock.

The Company cannot predict whether the reverse stock split will increase the market price for our Common Stock. The history of similar stock split combinations for companies in like circumstances is varied. There is no assurance that:

- the market price per share of our Common Stock after the reverse stock split will rise in proportion to the reduction in the number of shares of our Common Stock outstanding before the reverse stock split;
- the reverse stock split will result in a per share price that will attract brokers and investors who do not trade in lower-priced stocks;
- the reverse stock split will result in a per share price that will increase the ability of the Company to attract and retain employees; or
- the market price per share will achieve the \$1.00 minimum bid price requirement for a sufficient period for our Common Stock to regain compliance for continued listing on Nasdaq.

The market price of our Common Stock will also be based on the performance of the Company and other factors, some of which are unrelated to the number of shares outstanding. If the reverse stock split is effected and the market price of our Common Stock declines, the percentage decline as an absolute number and as a percentage of the overall market capitalization of the Company may be greater than would occur in the absence of a reverse stock split. Furthermore, the liquidity of our Common Stock could be adversely affected by the reduced number of shares that would be outstanding after the reverse stock split.

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Principal Effects of the Reverse Stock Split

The reverse stock split will be realized simultaneously for all shares of our Common Stock and options to purchase shares of our Common Stock outstanding immediately prior to the reverse stock split effective time. The reverse stock split will affect all holders of shares of our Common Stock outstanding immediately prior to the reverse stock split effective time uniformly and each such stockholder will hold the same percentage of our Common Stock outstanding immediately following the reverse stock split as that stockholder held immediately prior to the reverse stock split, except for immaterial adjustments that may result from the treatment of fractional shares as described below. The reverse stock split will not change the par value of our Common Stock or Preferred Stock and will not reduce the number of authorized shares of our Common Stock or Preferred Stock. Our Common Stock issued pursuant to the reverse stock split will remain fully paid and non-assessable. The reverse stock split will not affect the Company's continuing to be subject to the periodic reporting requirements of the Securities and Exchange Act of 1934, as amended (the "Exchange Act").

Procedure for Effecting Reverse Stock Split and Exchange of Stock Certificates

If the Company's stockholders approve the amendment to the Charter effecting the reverse stock split, and if the Company's Board still believes that a reverse stock split is in the best interests of the Company and its stockholders, the Company will file the certificate of amendment to the Charter with the Secretary of State of the State of Delaware following the determination by the Company's Board of the appropriate split ratio. The Company has agreed with the purchasers of the Preferred Stock that it will file such certificate of amendment with the Secretary of State of the State of Delaware as soon as practicable, but in no event later than one (1) Business Day following stockholder approval of the amendment. Beginning at the reverse stock split effective time, each stock certificate representing pre-split shares will be deemed for all corporate purposes to evidence ownership of post-split shares.

As soon as practicable after the reverse stock split effective time, stockholders will be notified that the reverse stock split has been effected. The Company expects that the Transfer Agent will act as exchange agent for purposes of implementing the exchange of stock certificates. Holders of pre-split shares will be asked to surrender to the exchange agent stock certificates representing pre-split shares in exchange for stock certificates (or book-entry positions) representing post-split shares in accordance with the procedures to be set forth in a letter of transmittal to be sent by the Company. No new certificates (or book-entry positions) will be issued to a stockholder until such stockholder has surrendered such stockholder's outstanding certificate(s) together with the properly completed and executed letter of transmittal to the exchange agent. Shares held in book-entry form will be automatically exchanged. Any pre-split shares submitted for transfer, whether pursuant to a sale or other disposition, or otherwise, will automatically be exchanged for post-split shares. **Stockholders should not destroy any stock certificate(s) and should not submit any certificate(s) unless and until requested to do so.**

Fractional Shares

No fractional shares will be issued in connection with the reverse stock split. Stockholders of record who otherwise would be entitled to receive fractional shares because they hold a number of pre-split shares not evenly divisible by the number of pre-split shares for which each post-split share is to be reclassified, will be entitled, upon surrender to the exchange agent of certificates representing such shares, to a cash payment in lieu thereof at a price equal to the fraction to which the stockholder would otherwise be entitled multiplied by the closing price of our Common Stock on the date of the filing of the certificate of amendment to the Charter effecting the reverse stock split. For the foregoing purposes, all shares of Common Stock held by a holder will be aggregated (thus resulting in no more than one fractional share per holder). The ownership of a fractional interest will not give the holder thereof any voting, dividend or other rights except to receive payment therefor as described herein.

Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where the Company is domiciled and where the funds will be deposited, sums due for fractional interests that are not timely claimed after the effective date of the split may be required to be paid to the designated agent for each such jurisdiction, unless correspondence has been received by the Company or the exchange agent concerning ownership of such funds within the time permitted in such jurisdiction. Thereafter, stockholders otherwise entitled to receive such funds will have to seek to obtain them directly from the state to which they were paid.

Potential Anti-Takeover Effect

Although the increased proportion of unissued authorized shares to issued shares could, under certain circumstances, have an anti-takeover effect, for example, by permitting issuances that would dilute the stock ownership of a person

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seeking to effect a change in the composition of the Company's Board or contemplating a tender offer or other transaction for the combination of the Company with another company, the reverse stock split proposal is not being proposed in response to any effort of which the Company is aware to accumulate shares of our Common Stock or obtain control of the Company, nor is it part of a plan by management to recommend a series of similar amendments to the Company's Board and stockholders. The Company's Board does not currently contemplate recommending the adoption of any actions that could be construed to affect the ability of third parties to take over or change control of the Company.

Material U.S. Federal Income Tax Consequences of the Reverse Stock Split

The following is a discussion of certain material U.S. federal income tax consequences of the reverse stock split that may be applicable to U.S. Holders (as defined below) of our Common Stock. This discussion does not purport to be a complete analysis of all potential tax consequences and is based upon current provisions of the Internal Revenue Code of 1986, as amended (the "Code"), existing Treasury Regulations, judicial decisions and published rulings and administrative pronouncements of the Internal Revenue Service (the "IRS"), all in effect as of the date hereof and all of which are subject to differing interpretations or change. Any such change or differing interpretation, which may be retroactive, could alter the tax consequences to holders of our Common Stock as described in this summary.

This discussion does not address all U.S. federal income tax consequences relevant to holders of our Common Stock. In addition, it does not address consequences relevant to holders of our Common Stock that are subject to particular U.S. or non-U.S. tax rules, including, without limitation, to holders of our Common Stock that are:

- persons who do not hold our Common Stock as a "capital asset" within the meaning of Section 1221 of the Code;
- brokers, dealers or traders in securities;
- banks, insurance companies, or other financial institutions;
- real estate investment trusts or regulated investment companies;
- tax-exempt entities, organizations or arrangements;
- governments or any agencies, instrumentalities or controlled entities thereof;
- treated as partnerships, S corporations, grantor trusts, disregarded entities or other pass-through entities or arrangements (or investors or holders of beneficial interests therein);
- liable for the alternative minimum tax under the Code;
- persons who hold their shares as part of a hedge, straddle, wash sale, synthetic security, conversion transaction or other integrated transaction;
- persons that have a functional currency other than the U.S. dollar;
- persons who hold shares of our Common Stock that may constitute "qualified small business stock" under Section 1202 of the Code or "Section 1244 stock" for purposes of Section 1244 of the Code;
- persons who acquired their shares of Common Stock in a transaction subject to the gain rollover provisions of Section 1045 of the Code;
- persons subject to special tax accounting rules as a result of any item of gross income being taken into account in an "applicable financial statement" (as defined in the Code);
- persons deemed to sell our Common Stock under the constructive sale provisions of the Code;
- persons who hold our Common Stock in a tax-deferred account (such as an individual retirement account or a plan qualifying under Section 401(k) of the Code);
- persons who acquired their shares of our Common Stock pursuant to the exercise of options or otherwise as compensation or through a retirement plan or through the exercise of a warrant or conversion rights under convertible instruments; and
- United States expatriates or former citizens or long-term residents of the United States.

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Holders of our Common Stock subject to particular U.S. or non-U.S. tax rules, including those listed above, are urged to consult their own tax advisors regarding the consequences to them of the reverse stock split.

If an entity or arrangement that is treated as a partnership for U.S. federal income tax purposes holds our Common Stock, the U.S. federal income tax treatment of a partner or owner of the entity or arrangement will generally depend upon the status of the partner or owner, the activities of the entity or arrangement and certain determinations made at the partner or owner level.

The following discussion does not address the tax consequences of the reverse stock split under state, local and non-U.S. tax laws, nor does it address the application of any tax treaty. Furthermore, the following discussion does not address any tax consequences of transactions effectuated before, after or at the same time as the reverse stock split, whether or not they are in connection with the reverse stock split.

STOCKHOLDERS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT BASED ON THEIR PARTICULAR SITUATIONS, INCLUDING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS, UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION, AND UNDER ANY APPLICABLE INCOME TAX TREATY.

This discussion applies only to holders of our Common Stock that are U.S. Holders. For purposes of this discussion, a “U.S. Holder” is a beneficial owner of our Common Stock that, for U.S. federal income tax purposes, is or is treated as:

- an individual who is a citizen or resident of the United States;
- a corporation or any other entity treated as a corporation created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if either (i) a court within the United States is able to exercise primary supervision over the administration of such trust, and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) is authorized or has the authority to control all substantial decisions of such trust, or (ii) the trust has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

Tax Consequences of the Reverse Stock Split

The Company believes that the proposed reverse stock split will constitute a “recapitalization” for U.S. federal income tax purposes pursuant to Section 368(a)(1)(E) of the Code. As a result, it generally is not expected that a U.S. Holder will recognize gain or loss upon the proposed reverse stock split, except with respect to cash received in lieu of a fractional share of our Common Stock, as discussed below. A U.S. Holder’s aggregate adjusted tax basis in the shares of our Common Stock received pursuant to the proposed reverse stock split is expected to equal the aggregate adjusted tax basis of the shares of our Common Stock surrendered (excluding any portion of such basis that is allocated to any fractional share of our Common Stock), and such U.S. Holder’s holding period in the shares of our Common Stock received is expected to include the holding period in the shares of our Common Stock surrendered. U.S. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the shares of our Common Stock surrendered to the shares of our Common Stock received in a recapitalization pursuant to the proposed reverse stock split. U.S. Holders of shares of our Common Stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

Cash in Lieu of Fractional Shares

A U.S. Holder that receives cash in lieu of a fractional share of our Common Stock pursuant to the proposed reverse stock split is generally expected to recognize capital gain or loss in an amount equal to the difference between the amount of cash received and the U.S. Holder’s tax basis in the shares of our Common Stock surrendered that is allocated to such fractional share of our Common Stock. Such capital gain or loss is expected to be long-term capital gain or loss if the U.S. Holder’s holding period for our Common Stock surrendered exceeds one year at the effective time of the reverse stock split.

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Information Reporting and Backup Withholding

Payments of cash made in lieu of a fractional share of our Common Stock may, under certain circumstances, be subject to information reporting and backup withholding. Backup withholding will not apply, however, to a U.S. Holder who furnishes a correct taxpayer identification number and makes other required certifications, or who is otherwise exempt from backup withholding and establishes such exempt status.

Backup withholding is not an additional tax. Any amounts withheld will be allowed as a credit against the applicable U.S. Holder's U.S. federal income tax liability and may entitle such U.S. Holder to a refund, provided the required information is timely furnished to the IRS. U.S. Holders of our Common Stock should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption.

Interests of the Board

No member of the Board has a substantial interest, directly or indirectly, in the matters set forth in the Reverse Stock Split Proposal, except to the extent of each member's ownership of shares of our Common Stock or options or warrants to purchase shares of our Common Stock. The Reverse Stock Split would result in an increase in the number of available shares of Common Stock, some of which could be used as compensation for non-employee directors or executive directors in connection with equity compensation plans. All such plans have been approved (or will be approved) by the stockholders of the Company at general meetings.

Required Vote

The affirmative vote of the holders of a majority of the voting power of our issued and outstanding shares of Common Stock and Preferred Stock at the Record Date will be required to approve the Reverse Stock Split Proposal.

THE COMPANY'S BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" THIS PROPOSAL NO. 1 TO APPROVE THE AMENDMENT TO THE CHARTER TO EFFECT THE REVERSE STOCK SPLIT.

Unless otherwise instructed, it is the intention of the persons named in the accompanying proxy card to vote shares represented by properly executed proxy cards "FOR" the approval of the amendment to the Charter to effect the reverse stock split.

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PROPOSAL NO. 2 – APPROVAL OF POSSIBLE ADJOURNMENT OF THE SPECIAL MEETING

The Board believes that if there are insufficient votes of the Company's Common Stock and Preferred Stock to approve the Reverse Stock Split Proposal, it is in the best interests of the stockholders to enable the Board to continue to seek to obtain a sufficient number of additional votes to approve the Reverse Stock Split Proposal.

If we fail to receive a sufficient number of votes to approve Proposal No. 1, we may propose to adjourn the Special Meeting, for a period of not more than 60 days, for the purpose of soliciting additional proxies to approve Proposal No. 1. The Company currently does not intend to propose an adjournment at the Special Meeting if there are sufficient votes to approve Proposal No. 1.

Required Vote

The affirmative vote of the holders of a majority of the voting power of the shares of Common Stock and Series A Preferred Stock represented in person or by proxy at the Special Meeting and actually voting on the subject matter will be required to approve the Adjournment Proposal.

THE COMPANY'S BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THIS PROPOSAL NO. 2 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF PROPOSAL NO. 1.

Unless otherwise instructed, it is the intention of the persons named in the accompanying proxy to vote shares "FOR" the adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

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OTHER MATTERS

Management and the Board know of no matters to be brought before the Special Meeting other than as set forth herein.

STOCKHOLDERS SHARING AN ADDRESS OR HOUSEHOLD

Only one copy of the proxy materials is being delivered to multiple security holders sharing an address unless we have received instructions to the contrary from one or more of the stockholders.

We will deliver promptly upon written or oral request a separate copy of the proxy materials to any stockholder at a shared address to which a single copy of any of those documents was delivered. To receive a separate copy of the proxy materials, or if two stockholders sharing an address have received two copies of any of these documents and desire to only receive one, you may write to the Company, c/o Investor Relations, at our principal executive offices at 1330 Avenue of the Americas, 33rd Floor, New York, NY 10019 or call the Company at 646-813-4701.

SUBMISSION OF NOMINATIONS AND PROPOSALS FOR THE 2022 ANNUAL MEETING

The Board will make provisions for the presentation of proposals submitted by eligible stockholders who have complied with the relevant rules and regulations of the SEC as well as those contained in our Charter and Bylaws. A stockholder may nominate directors at the 2022 annual meeting of stockholders by submitting the nomination to the Company not later than 120 calendar days in advance of such meeting in accordance with our Charter. Additionally, with respect to stockholder nominations and proposals to be included in the Company's proxy statement under Rule 14a-8 under the Exchange Act, we must have received such nominations for the election of directors or proposals no later than December 10, 2021 if the date of the 2022 annual meeting of stockholders is on or before June 25, 2022. If the date of the 2022 annual meeting of stockholders is on or after June 26, 2022, then the deadline for stockholder nominations or proposals to be included in the Company's proxy statement under Rule 14a-8 is a reasonable time before we begin to print and send proxy materials for the 2022 annual meeting of stockholders.

The nomination or proposal must be delivered to the Company's executive offices at 1330 Avenue of the Americas, 33rd Floor, New York, NY 10019, Attention: Corporate Secretary. Any stockholder considering submitting a nominee or proposal for action at our 2022 annual meeting of stockholders is directed to the Company's Charter and Bylaws, which contain additional requirements as to submission of nominations for directors or proposals for stockholder action. Copies of the Charter and Bylaws may be obtained upon request to the Company's Corporate Secretary. Stockholder proposals or nominations must include the specified information concerning the stockholder and the proposal or nominee as described in our Charter and Bylaws.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We make available free of charge through our website, www.abeonatherapeutics.com, our annual reports on Form 10-K and other reports that we file with the SEC as well as certain of our corporate governance policies, including the charters for the audit, compensation and nominating and corporate governance committees of the Board and our code of ethics, corporate governance guidelines and whistleblower policy. We will also provide to any person without charge, upon request, a copy of any of the foregoing materials. Any such request must be made in writing to us at: Abeona Therapeutics Inc. c/o Investor Relations, 1330 Avenue of the Americas, 33rd Floor, New York, NY 10019. The SEC's website, www.sec.gov, contains reports, proxy statements, and other information that we file electronically with the SEC. The content on any website referred to in this proxy statement is not incorporated by reference in this proxy statement unless expressly noted.

May [], 2022

BY ORDER OF THE BOARD OF DIRECTORS

Vishwas Seshadri
President and Chief Executive Officer

Appendix A

**Certificate of Amendment
of
Restated Certificate of Incorporation
of
Abeona Therapeutics Inc**

Abeona Therapeutics Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware (the "DGCL"), does hereby certify that:

1. The name of the Corporation is Abeona Therapeutics Inc.
2. The Restated Certificate of Incorporation of the Corporation is hereby amended by adding at the end of Article V the following new paragraph:

"Effective immediately upon the filing of this Certificate of Amendment with the Secretary of the State of Delaware (the "Effective Time"), each () shares of the Corporation's Common Stock, par value \$0.01 per share ("Common Stock"), then issued and outstanding or held by the Corporation in treasury stock immediately prior to the Effective Time shall automatically be combined, reclassified and changed into one (1) validly issued, fully paid and non-assessable share of Common Stock without any further action by the Corporation or the holder thereof, subject to the treatment of fractional interests as described below. Notwithstanding the immediately preceding sentence, no fractional shares will be issued in connection with the combination effected by the preceding sentence. Stockholders of record who otherwise would be entitled to receive fractional shares in connection with such combination will instead be entitled to receive, in lieu of such fractional shares, an amount in cash equal to the fraction to which the stockholder would otherwise be entitled multiplied by the closing price of our Common Stock on the Nasdaq Capital Markets on the date on which the Effective Time occurs."

3. The foregoing amendment has been duly adopted by the board of directors of the Corporation and the holders of a majority of the issued and outstanding shares of capital stock of the Corporation entitled to vote thereon at the special meeting of stockholders of the Corporation held on _____, 2022 pursuant to Sections 141 and 242 of the DGCL.
4. This Certificate of Amendment shall be effective on _____, 2022 at Eastern Time.

IN WITNESS WHEREOF, Abeona Therapeutics Inc. has caused this Certificate of Amendment to the Restated Certificate of Incorporation to be signed by its duly authorized officer on this day of _____, 2022.

Vishwas Seshadri President
and Chief Executive Officer

**SPECIAL MEETING OF STOCKHOLDERS OF
ABEONA THERAPEUTICS INC.**

Tuesday, June 14, 2022

**IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS
FOR THE STOCKHOLDER MEETING TO BE HELD ON JUNE 14, 2022**
The Notice of Special Meeting and proxy statement are available at www.proxyvote.com

**Please sign, date and mail
your proxy card in the
envelope provided as soon
as possible.**

(Please detach along perforated line and mail in the envelope provided)

D86236-546591

PRELIMINARY COPY — SUBJECT TO COMPLETION

**ABEONA THERAPEUTICS INC.
1330 Avenue of the Americas, 33rd Floor, New York, NY 10019**

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned stockholder, having received the Notice of Special Meeting of Stockholders and proxy statement dated May [TBD], 2022, and revoking any proxy heretofore given, hereby appoints Vishwas Seshadri, Chief Executive Officer, and Joseph Vazzano, Chief Financial Officer, for the Corporation or either of them, proxies of the undersigned with full power of substitution, to vote all shares of Common Stock of Abeona Therapeutics Inc. that the undersigned is entitled to vote at the Special Meeting of Stockholders to be held virtually at 10:00 a.m., Eastern Time on Tuesday, June 14, 2022, or any postponement or adjournment thereof via live audio webcast over the Internet at www.virtualshareholdermeeting.com/ABEO2022SM.

The proxy holder is authorized to act, in accordance with his or her discretion, upon all matters incident to the conduct of the meeting and upon other matters that properly come before the Special Meeting of Stockholders, subject to compliance with Rule 14a-4(c) of the Securities Exchange Act of 1934, as amended. This proxy, when properly executed, will be voted in the manner directed herein by the undersigned stockholder. If no direction is made, this proxy will be voted "FOR" Proposals 1 and 2.

In their discretion, the named proxies are authorized to vote on any other matters that may properly come before the Special Meeting or any postponement or adjournment thereof as set forth in the proxy statement.

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE.

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PRELIMINARY COPY — SUBJECT TO COMPLETION



ABEONA THERAPEUTICS INC.
1330 AVENUE OF THE AMERICAS, 33RD FLOOR
NEW YORK, NY 10019



**SCAN TO
VIEW MATERIALS & VOTE**



VOTE BY INTERNET

Before The Meeting - Go to www.proxyvote.com or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/ABEO20225M

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

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

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

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

D86235-546591

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

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

ABEONA THERAPEUTICS INC.



THE BOARD RECOMMENDS A VOTE "FOR" PROPOSALS 1 AND 2.

- | | For | Against | Abstain |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|
| 1. To approve an amendment to the Restated Certificate of Incorporation of the Company to effect a reverse stock split of our common stock at a ratio to be determined by the Board of Directors within a range of one-for-10 to one-for-80 (or any number in between), without reducing the authorized number of shares of our common stock, to be effected in the sole discretion of the Board of Directors at any time within one year of the date of the Special Meeting without further approval or authorization of our stockholders. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. To approve the adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

To transact such other business as may properly come before the meeting or any adjournment thereof.

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, WILL BE VOTED AS THE BOARD RECOMMENDS.

PLEASE MARK, SIGN AND DATE BELOW AND RETURN THIS PROXY PROMPTLY USING THE ENCLOSED ENVELOPE.

THIS PROXY IS SOLICITED ON BEHALF OF ABEONA THERAPEUTICS INC.'S BOARD OF DIRECTORS AND MAY BE REVOKED BY THE STOCKHOLDER PRIOR TO BEING VOTED AT THE SPECIAL MEETING OF STOCKHOLDERS BY SUBMITTING ANOTHER PROXY BEARING A LATER DATE OR BY GIVING NOTICE IN WRITING TO OUR SECRETARY NOT LATER THAN THE DAY PRIOR TO THE SPECIAL MEETING.

NOTE: Please sign exactly as your name or names appear(s) on this Proxy. When shares are held jointly each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

Signature [PLEASE SIGN WITHIN BOX] Date

Signature (Joint Owners) Date