

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

SCHEDULE 14A
(Rule 14a-101)

Information Required in Proxy Statement
Schedule 14A Information

Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934

(Amendment No. 1)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

TRANSCODE 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.
-

EXPLANATORY NOTE

This Amendment No. 1 (this “Proxy Statement”) amends and restates in its entirety the Definitive Proxy Statement on Schedule 14A of TransCode Therapeutics, Inc. (the “Company”) that was originally filed with the Securities and Exchange Commission on April 29, 2024 (the “Original Proxy Statement”). This Proxy Statement is being filed (i) to include a proposal to approve an amendment to our amended and restated certificate of incorporation, as amended (the “Charter”), to authorize our Board of Directors, or Board, if they determine that doing so is in the best interest of our shareholders, to effect a reverse stock split of our outstanding shares of common stock, par value \$0.0001 per share (the “Common Stock”), at a ratio, ranging from one-for-two (1:2) to one-for-forty (1:40), with the exact ratio to be set within that range at the discretion of our Board without further approval or authorization of our stockholders and (ii) to include a proposal to adjourn the Annual Meeting (as defined below) to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of certain proposals in this Proxy Statement. Except as specifically discussed herein, this Proxy Statement does not otherwise modify or update any other disclosures presented in the Original Proxy Statement.

You should read this Proxy Statement in its entirety and in place of the Original Proxy Statement. The Company will print and distribute this Proxy Statement for consideration in lieu of the Original Proxy Statement.

**PRELIMINARY PROXY STATEMENT, DATED MAY 10, 2024,
SUBJECT TO COMPLETION**

T R A N S C O D E
T H E R A P E U T I C S™

May , 2024

Dear TransCode Stockholder:

I am pleased to invite you to attend the 2024 Annual Meeting of Stockholders (the “Annual Meeting”) of TransCode Therapeutics, Inc (the “Company” or “TransCode”). The Annual Meeting will be held on June 13, 2024, at 9:30 a.m., local time, at the offices of Goodwin Procter LLP, 100 Northern Avenue, Boston, MA 02210.

We intend to hold our Annual Meeting in person. In the event it is not possible or advisable to hold our Annual Meeting in person, we will announce alternative arrangements for the meeting as promptly as practicable, which may include holding the meeting solely by means of remote communication. Please monitor our annual meeting website at <https://ir.transcodetherapeutics.com/annual-meeting> for updated information. If you are planning to attend our Annual Meeting, please check the website one week prior to the meeting date. To ensure that your vote is counted, we encourage you to vote your shares by proxy prior to the Annual Meeting. If you decide to change your vote or if you are a stockholder of record and decide to vote in person at the Annual Meeting, your updated vote will be the vote that is counted.

At this Annual Meeting, the agenda includes:

- election of four (4) directors, Philippe P. Calais, PharmD, PhD, Thomas A. Fitzgerald, Erik Manting, PhD, and Magda Marquet, PhD, for one-year terms until his or her successor has been duly elected and qualified, or until his or her earlier death, resignation or removal;
- approval of an amendment to the Company’s 2021 Stock Option and Incentive Plan to increase the number of shares available for issuance thereunder by 3,000,000 shares, as more fully described in this Proxy Statement (as defined below);
- ratification of the appointment of WithumSmith+Brown, PC as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2024;
- approval of an amendment to our amended and restated certificate of incorporation, as amended (the “Charter”), to authorize our Board of Directors, or Board, if they determine that doing so is in the best interest of our shareholders, to effect a reverse stock split of our outstanding shares of common stock, par value \$0.0001 per share (the “Common Stock”), at a ratio, ranging from one-for-two (1:2) to one-for-forty (1:40), with the exact ratio to be set within that range at the discretion of our Board of Directors without further approval or authorization of our stockholders;
- approval of a proposal to adjourn the Annual Meeting to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of the amendment to the Company’s 2021 Stock Option and Incentive Plan proposal and the reverse stock split proposal; and
- the transaction of any other business properly brought before the Annual Meeting or any adjournment or postponement of the Annual Meeting.

This 2024 Annual Meeting Proxy Statement (the “Proxy Statement”) and enclosed proxy card are first being mailed to stockholders on or about May , 2024.

Details regarding admission to the Annual Meeting and the business to be conducted are more fully described in the accompanying Notice of 2024 Annual Meeting of Stockholders (the “Notice”) and the Proxy Statement. Stockholders of record are owners of our stock as of April 22, 2024, and are entitled to vote at our Annual Meeting and any adjournments thereof.

Your vote is very important. Whether or not you plan to attend the Annual Meeting, please carefully review the enclosed Proxy Statement and then cast your vote, regardless of the number of shares you hold.

If you are a stockholder of record, you may vote over the Internet, by telephone, or, if you request to receive a printed set of the proxy materials, by completing, signing, dating and mailing the accompanying proxy card in the return envelope. Submitting your vote via the Internet, or by telephone or proxy card will not affect your right to vote in person if you decide to attend the Annual Meeting and wish to vote then, even if you have already cast a previous vote.

If your shares are held in “street name” (i.e., held on your behalf by a broker or other nominee), you will receive instructions from your broker or other nominee explaining how to vote your shares. You will have the option to cast your vote by telephone or over the Internet if the voting instruction form from your broker or nominee includes instructions and a toll-free telephone number or Internet website to do so. In any event, to help ensure that your vote is received in time, please cast your vote by your choice of available means at your earliest convenience.

We hope that you will join us on June 13, 2024. Your investment and continuing interest in TransCode are very much appreciated.

Sincerely,

/s/ Thomas A. Fitzgerald

Thomas A. Fitzgerald
Interim Chief Executive Officer and
Chief Financial Officer

THIS PROXY STATEMENT AND THE ENCLOSED PROXY CARD ARE FIRST BEING MAILED TO STOCKHOLDERS OF RECORD ON OR ABOUT MAY , 2024.

**PRELIMINARY PROXY STATEMENT, DATED MAY 10, 2024,
SUBJECT TO COMPLETION**

T R A N S C O D E
T H E R A P E U T I C S [™]

NOTICE OF 2024 ANNUAL MEETING OF STOCKHOLDERS

<i>Time</i>	9:30 a.m., Eastern Time
<i>Date</i>	June 13, 2024
<i>Place</i>	The offices of Goodwin Procter LLP, 100 Northern Avenue, Boston, MA 02210. In the event it is not possible or advisable to hold our 2024 Annual Meeting of Stockholders (the “Annual Meeting”) in person, the Annual Meeting may be held virtually (that is, one held by means of remote communication). If we take this step, we will announce the decision to do so in advance, with details on how to participate posted on our website at https://ir.transcodetherapeutics.com/annual-meeting .
<i>Purpose</i>	<p>To elect Philippe P. Calais, PharmD, PhD, Thomas A. Fitzgerald, Erik Manting, PhD, and Magda Marquet, PhD, as members of the Board of Directors, to serve until the Company’s 2025 Annual Meeting of Stockholders or until their successors are duly elected and qualified;</p> <p>To approve an amendment to the Company’s 2021 Stock Option and Incentive Plan to increase the number of shares available for issuance thereunder by 3,000,000 shares.</p> <p>To ratify the appointment of WithumSmith+Brown, PC as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2024;</p> <p>To approve an amendment to our amended and restated certificate of incorporation, as amended (the “Charter”), to authorize our Board of Directors, or Board, if they determine that doing so is in the best interest of our shareholders, to effect a reverse stock split of our outstanding shares of common stock, par value \$0.0001 per share (the “Common Stock”), at a ratio, ranging from one-for-two (1:2) to one-for-forty (1:40), with the exact ratio to be set within that range at the discretion of our Board without further approval or authorization of our stockholders;</p> <p>To approve a proposal to adjourn the Annual Meeting to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of the amendment to the Company’s 2021 Stock Option and Incentive Plan proposal and the reverse stock split proposal; and</p> <p>To transact any other business that may properly come before the Annual Meeting or any adjournment thereof.</p>
<i>Record Date</i>	The Board has fixed the close of business on April 22, 2024, as the record date for determining stockholders entitled to notice of and to vote at the Annual Meeting.

Meeting Admission

All stockholders as of the record date, or their duly appointed proxies, may attend the Annual Meeting. If you attend, you will be asked to present valid government-issued picture identification such as a driver's license or passport. If your TransCode stock is held in a brokerage account or by a bank or other nominee, you are considered the beneficial owner of shares held in "street name," and this Proxy Statement is being forwarded to you by your broker or nominee. As a result, your name does not appear on our list of stockholders. If your stock is held in "street name," in addition to picture identification, you should bring with you a letter or account statement showing that you were the beneficial owner of the shares on the record date in order to be admitted to the Annual Meeting.

Voting by Proxy

If you are a stockholder of record, please vote via the Internet or, for shares held in "street name," please submit the voting instruction form you received from your broker or nominee as soon as possible so your shares can be voted at the Annual Meeting. You may submit your voting instruction form by U.S. mail. If you are a stockholder of record, you may also vote by telephone or by submitting a proxy card by U.S. mail. If your shares are held in "street name," you will receive instructions from your broker or other nominee explaining how to vote your shares, and you may also have the choice of using the Internet or telephone to instruct that holder of your shares as to how to vote your shares. Follow the instructions on the voting instruction form you received from your broker or nominee.

By order of the Board of Directors,

/s/ Thomas A. Fitzgerald

Thomas A. Fitzgerald
Interim Chief Executive Officer and Chief Financial Officer

Boston, Massachusetts
May , 2024

IMPORTANT NOTICE REGARDING AVAILABILITY OF PROXY MATERIALS.

This Proxy Statement and the proxy card are first being mailed to our stockholders on or about May , 2024. In accordance with SEC rules, we are advising our stockholders of the Internet availability of our proxy materials related to our upcoming Annual Meeting. Because we have elected to utilize the "full set delivery" option, we are delivering paper copies of all the proxy materials to all our stockholders, as well as providing access to those proxy materials on a publicly accessible website. This Proxy Statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, are available to our stockholders at <https://ir.transcodetherapeutics.com/annual-meeting>.

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TRANSCODE

THERAPEUTICS™

TRANSCODE THERAPEUTICS, INC.
6 Liberty Square, #2382
Boston, MA 02109

PROXY STATEMENT
FOR THE 2024 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD JUNE 13, 2024

This Proxy Statement contains information about the 2024 Annual Meeting of Stockholders (the “Annual Meeting”) of TransCode Therapeutics, Inc. The Annual Meeting will be held at the offices of Goodwin Procter LLP, 100 Northern Avenue, Boston, MA 02210 on June 13, 2024, at 9:30 a.m. Eastern Time. In this Proxy Statement, the terms “TransCode Therapeutics,” “TransCode,” the “Company,” “we,” “us,” and “our” refer to TransCode Therapeutics, Inc. The mailing address of our principal executive office is TransCode Therapeutics, Inc., 6 Liberty Square, #2382, Boston, MA 02109 USA.

All properly submitted proxies will be voted in accordance with the instructions contained in those proxies. If no instructions are specified, the proxies will be voted in accordance with the recommendation of our Board of Directors (the “Board”) with respect to each of the matters set forth in the accompanying Notice of the 2024 Annual Meeting of Stockholders. You may revoke your proxy at any time before it is exercised at the Annual Meeting by written notice to that effect to our corporate secretary.

We first mailed this Proxy Statement and the proxy card to our stockholders on or about May 1, 2024. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, (the “2023 Annual Report”) was filed with the Securities and Exchange Commission (“SEC”) on April 1, 2024, and except for exhibits, is available at <https://ir.transcodetherapeutics.com/annual-meeting> or, without charge to any stockholder, by written request to TransCode.

We are an “emerging growth company” under applicable federal securities laws and therefore permitted to conform with certain reduced public company reporting requirements. As an emerging growth company, we provide in this Proxy Statement the scaled disclosure permitted under the Jumpstart Our Business Startups Act of 2012, including the compensation disclosures required of a “smaller reporting company,” as that term is defined in Rule 12b-2 promulgated under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). In addition, as an emerging growth company, we are not required to conduct votes seeking approval, on an advisory basis, of the compensation of our named executive officers or the frequency with which such votes must be conducted or required to provide pay versus performance disclosure under Item 402(v) of Regulation S-K. We will remain an “emerging growth company” until the earliest of (i) the last day of the fiscal year following the fifth anniversary of our July 2021 initial public offering; (ii) the last day of the fiscal year in which our total annual gross revenue is equal to or more than \$1.235 billion; (iii) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. Even after we are no longer an “emerging growth company,” we may remain a “smaller reporting company.”

Important Notice Regarding the Availability of Proxy Materials for
the Annual Meeting of Stockholders of TransCode Therapeutics, Inc. to be Held on June 13, 2024:

This Proxy Statement and the proxy card are first being mailed to our stockholders on or about May 1, 2024. In accordance with the rules of the SEC, we are advising our stockholders of the availability on the Internet of our proxy materials related to our upcoming Annual Meeting. Because we have elected to utilize the “full set delivery” option, we are delivering to all stockholders paper copies of all our proxy materials, as well as providing access to those proxy materials on a publicly accessible website. This Proxy Statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, are available to our stockholders at <https://ir.transcodetherapeutics.com/annual-meeting>.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, as filed with the SEC, except for exhibits, will be furnished without charge to any of our stockholders upon written request to TransCode Therapeutics, Inc., 6 Liberty Square, #2382, Boston, MA 02109 USA, Attention: Corporate Secretary. This Proxy Statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, are also available on the SEC's website at www.sec.gov.

TRANSCODE THERAPEUTICS, INC
PROXY STATEMENT
FOR THE 2024 ANNUAL MEETING OF STOCKHOLDERS

GENERAL INFORMATION

When are this Proxy Statement and the accompanying materials scheduled to be sent to stockholders?

This Proxy Statement and the proxy card are first being mailed to our stockholders on or about May 2024. In accordance with SEC rules, we are advising our stockholders of the availability on the Internet of our proxy materials related to our upcoming Annual Meeting. Because we have elected to utilize the “full set delivery” option, we are delivering to all stockholders paper copies of all the proxy materials, as well as providing access to those proxy materials on a publicly accessible website. This Proxy Statement, and our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, are available to our stockholders at <https://ir.transcodetherapeutics.com/annual-meeting>.

Who is soliciting my vote?

Our board of directors (the “Board”) is soliciting your vote for the Annual Meeting. We have also engaged Saratoga Proxy Consulting, LLC (“Saratoga”), a proxy solicitation firm, who may solicit proxies on the Board’s behalf.

We expect to pay Saratoga a fee of \$25,000 in the aggregate, plus reasonable out-of-pocket expenses incurred in the process of soliciting proxies. In addition, we have agreed to indemnify Saratoga and certain related persons against certain liabilities arising out of or in connection with the engagement. Saratoga may solicit proxies by mail, telephone, facsimile or e-mail.

When is the Record Date for the Annual Meeting?

The record date for determination of stockholders entitled to vote at the Annual Meeting is the close of business on April 22, 2024 (the “Record Date”).

Who is entitled to vote at the Annual Meeting and how many votes can be cast?

Stockholders of record at the close of business on the Record Date may vote at the Annual Meeting. There were 6,108,053 shares of common stock, par value \$0.0001 (the “Common Stock”), outstanding on the Record Date.

Pursuant to the rights of our stockholders contained in our governing documents, each share of our Common Stock is entitled to one vote on all matters listed in this Proxy Statement.

How may I vote?

Stockholders of record may vote by any of the methods described below:

- **By Internet.** Access the website of the Company’s vote tabulator, Broadridge, at: www.proxyvote.com, using the voter control number printed on the proxy card furnished to you. Your shares will be voted in accordance with your instructions. You must specify how you want your shares voted or your Internet vote cannot be completed and you will receive an error message. If you vote on the Internet, you may also request electronic delivery of future proxy materials.
- **By Telephone.** Call 1-800-690-6903 toll-free from the U.S., U.S. territories and Canada, and follow the instructions on the enclosed proxy card. Your shares will be voted in accordance with your instructions. You must specify how you want your shares voted or your telephone vote cannot be completed.
- **By Mail.** Complete and mail a proxy card in the enclosed postage prepaid envelope to Broadridge. Your proxy will be voted in accordance with your instructions. If you return your proxy card but do not specify how you want your shares voted on any particular matter, they will be voted in accordance with the recommendations of our Board. If you are mailed or otherwise receive or obtain

a proxy card or voting instruction form, and you choose to vote by telephone or by Internet, you do not have to return your proxy card or voting instruction form.

Attending the Annual Meeting in Person. If you attend the Annual Meeting, be sure to bring a form of government-issued picture identification, such as a driver's license or passport, with you to gain access to the Annual Meeting. You may then deliver your completed proxy card in person, or you may vote by completing a ballot, which will be available at the Annual Meeting. (If your stock is held in "street name," in addition to picture identification, bring with you a letter or account statement showing that you were the beneficial owner of the shares on the Record Date in order to be admitted to the Annual Meeting.)

Deadline for Voting. Votes submitted through the Internet, or by telephone or U.S. mail must be received by 11:59 p.m. Eastern Time, June 12, 2024.

If the Annual Meeting is adjourned or postponed, the deadline above may be extended.

If you are a beneficial owner of shares held in "street name" by your broker, bank or other nominee, you should have received a voting instruction form with these proxy materials from your broker, bank or other nominee rather than from us. The voting deadlines and availability of telephone and Internet voting for beneficial owners of shares will depend on the voting processes of the broker, bank or other nominee that holds your shares. Therefore, we urge you to carefully review and follow the voting instruction form and any other materials that you receive from that organization. **If you hold your shares of TransCode Common Stock in multiple accounts, you should vote your shares as described in each set of proxy materials you receive.**

If you submit a proxy without giving voting instructions, your shares will be voted in the manner recommended by the Board on all matters presented in this Proxy Statement, and as the person(s) named as proxies in the proxy card may determine in their discretion with respect to any other matters properly presented at the Annual Meeting. You may also authorize another person or persons to act for you as proxy in a writing, signed by you or your authorized representative, specifying the details of those proxies' authority. The original writing must be given to each of the named proxies, although it may be sent to them by electronic transmission if, from that transmission, it can be determined that the transmission was authorized by you.

If any other matters are properly presented for consideration at the Annual Meeting, the persons named in your proxy and acting thereunder will have discretion to vote on those matters in accordance with their best judgment. We do not currently anticipate that any other matters will be raised at the Annual Meeting.

How will my shares be voted?

In each case, your shares will be voted as you instruct. If you return a signed card, but do not provide voting instructions, your shares will be voted **FOR** each of the proposals.

How do I revoke my proxy?

If you are a stockholder of record, you may revoke your proxy by (1) submitting a new vote by Internet, telephone or U.S. mail using the procedures described in the "How do I Vote?" section above before the applicable deadline, (2) attending and voting at the Annual Meeting (although you must request a ballot at the Annual Meeting as attendance at the Annual Meeting will not in and of itself revoke a proxy), or (3) by filing an instrument in writing revoking the proxy or by submitting to our corporate secretary another duly executed proxy bearing a later date. Any written notice of revocation or subsequent proxy card must be received by our corporate secretary prior to the taking of the vote at the Annual Meeting. Such written notice of revocation or subsequent proxy card should be hand-delivered to our corporate secretary or sent to our principal executive offices at TransCode Therapeutics, Inc., 6 Liberty Square, #2382, Boston, MA 02109 USA, Attention: Corporate Secretary.

If a broker, bank, or other nominee holds your shares, you must contact such broker, bank, or nominee in order to find out how to change your vote.

How is a quorum reached?

Our Amended and Restated Bylaws, as amended (the “Bylaws”), provide that a majority of the outstanding shares entitled to vote at a meeting of our stockholders, present in person or represented by proxy, will constitute a quorum for the transaction of business at such meeting, including the Annual Meeting. We must have a quorum to conduct business at the Annual Meeting. Under the General Corporation Law of the State of Delaware (the “DGCL”), the state in which we are incorporated, shares that are voted “abstain” or “withheld” and broker “non-votes” are counted as present for purposes of determining whether a quorum is present at the Annual Meeting. If a quorum is not present, the meeting may be adjourned until a quorum is obtained.

Why is the Company proposing to effect a reverse stock split?

Our Board has unanimously adopted a resolution declaring advisable, and recommending to our stockholders for their approval, an amendment to our amended and restated certificate of incorporation (the “Reverse Stock Split Amendment”) (i) authorizing a reverse stock split of the outstanding shares of our Common Stock at a ratio in the range of 1-for-2 to 1-for-40, with such ratio to be determined by the Board (the “Reverse Stock Split”) if they determine that effecting the Reverse Stock Split is in the best interest of our shareholders, and (ii) granting the Board the discretion to file a certificate of amendment to our amended and restated certificate of incorporation with the Secretary of State of the State of Delaware effecting the Reverse Stock Split prior to December 31, 2024, or to abandon the Reverse Stock Split altogether.

On May [7], 2024, we received a letter from Nasdaq that, because the closing prices of our common stock had not regained compliance with the Minimum Bid Price Requirement of the Nasdaq Capital Market (“Nasdaq”), the Nasdaq staff has recommended that our common stock be delisted from trading on the Nasdaq Capital Market. We anticipate filing an appeal and request for a hearing panel of Nasdaq, but there is no assurance that there will be any panel hearing or, if a panel hearing occurs, about the outcome. The primary goal of the Reverse Stock Split is to increase the per share market price of our Common Stock to meet the minimum per share bid price requirements for continued listing on the Nasdaq Capital Market.

The form of the proposed Reverse Stock Split Amendment is attached to this proxy statement as Appendix B. If our Board determines to file the Reverse Stock Split Amendment, it will effect the Reverse Stock Split by reducing the number of outstanding shares of Common Stock as compared to the number of outstanding shares immediately prior to the effectiveness of the Reverse Stock Split, but will not increase the par value of Common Stock, and will not change the number of authorized shares of our capital stock. Stockholders are urged to carefully read Appendix B. If implemented, the number of shares of our Common Stock owned by each of our stockholders will be reduced by the same proportion as the reduction in the total number of shares of our Common Stock outstanding, so that the percentage of our outstanding Common Stock owned by each of our stockholders will remain approximately the same, except to the extent that the Reverse Stock Split could result in some or all of our stockholders receiving one share of Common Stock in lieu of a fractional share.

How is the vote counted?

Under our Bylaws, any proposal other than an election of directors is decided by a majority of the votes properly cast for or against such proposal, except where a larger vote is required by law or by our Charter or our Bylaws. Abstentions and broker “non-votes” are not included in the tabulation of the voting results on any such proposal and, therefore, do not have an impact on such proposals. A broker “non-vote” occurs when a nominee holding shares for a beneficial owner does not vote on a particular proposal because the nominee does not have discretionary voting power with respect to that proposal and has not received instructions from the beneficial owner about how to vote on that proposal.

If you are a beneficial owner of shares held in a brokerage account and you do not instruct your broker, bank or other agent how to vote your shares, your broker, bank or other agent may still be able to vote your shares in its discretion. Under the rules of the New York Stock Exchange, which are also applicable to Nasdaq-listed companies, brokers, banks and other securities intermediaries that are subject to New York Stock Exchange rules may use their discretion to vote your “uninstructed” shares on matters considered

to be “routine” under New York Stock Exchange rules but not with respect to “non-routine” matters. A broker non-vote occurs when a broker, bank or other agent has not received voting instructions from the beneficial owner of the shares and the broker, bank or other agent cannot vote the shares because the matter is considered “non-routine” under New York Stock Exchange rules. Proposals 1 and 2 are considered “non-routine” under New York Stock Exchange rules such that your broker, bank or other agent may not vote your shares on those proposals in the absence of your voting instructions. Conversely, Proposals 3 , 4 and 5 are considered “routine” under New York Stock Exchange rules and thus, if you do not return voting instructions to your broker, your shares may be voted by your broker in its discretion on Proposals 3 , 4 and 5.

A summary of our Annual Meeting proposals and applicable vote standards is set forth below.

Matter	Voting Options	Board Recommends	Vote Required for Approval	Effect of Withheld Votes or Abstentions	Effect of Broker Non-Votes
1. Election of Directors	FOR WITHHOLD	FOR each nominee	Plurality of shares present and voting, which means that the four nominees who receive the highest number of shares voted “for” their election will be elected	None	None
2. Plan Amendment	FOR AGAINST ABSTAIN	FOR	Majority of votes properly cast	None	None
3. Ratification of Auditors	FOR AGAINST ABSTAIN	FOR	Majority of votes properly cast	None	None
4. Reverse Stock Split Proposal	FOR AGAINST ABSTAIN	FOR	Majority of votes properly cast	None	None
5. The Adjournment Proposal	FOR AGAINST ABSTAIN	FOR	Majority of votes properly cast	None	None

Proposal One: Election of directors for a one-year term ending at the 2025 Annual Meeting of Stockholders. To be elected, the directors nominated via Proposal No. 1 must receive a plurality of the votes properly cast, meaning that the director nominees receiving the most votes will be elected. Shares voting “withheld” and broker non-votes have no effect on the election of directors.

Proposal Two: Plan Amendment. The approval of an amendment to the Company’s 2021 Stock Option and Incentive Plan to increase the number of shares available for issuance thereunder by 3,000,000 shares requires the affirmative vote of a majority of the votes properly cast on the proposal.

Proposal Three: Ratification of Auditors. Ratification of the appointment of WithumSmith+Brown, PC as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2024, requires the affirmative vote of a majority of the votes properly cast on the proposal.

Proposal Four: Reverse Stock Split. The approval of an amendment to our Charter, to effect a Reverse Stock Split (the “Reverse Stock Split Proposal”).

Proposal Five: Adjournment. To approve a proposal to adjourn the Annual Meeting to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval Proposals 2 and 4.

Who pays the cost for soliciting proxies?

We are making this solicitation and will pay the entire cost of preparing and distributing our proxy materials and of soliciting votes. Our officers and employees may, without compensation other than their regular compensation, solicit proxies through further mailings, personal conversations, fax, e-mails, or otherwise.

We have also engaged Saratoga, a proxy solicitation firm, who may solicit proxies on the Board's behalf.

We expect to pay Saratoga a fee of \$25,000 in the aggregate, plus reasonable out-of-pocket expenses incurred in the process of soliciting proxies. In addition, we have agreed to indemnify Saratoga and certain related persons against certain liabilities arising out of or in connection with the engagement. Saratoga may solicit proxies by mail, telephone, facsimile or e-mail.

How may stockholders submit matters for consideration at an annual meeting?

The required notice must be in writing and received by our corporate secretary at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting. However, in the event that the date of the annual meeting is advanced by more than 30 days from the first anniversary of the preceding year's annual meeting, or if no annual meeting was held in the preceding year, a stockholder's notice must be so received no earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs.

In addition, any stockholder proposal intended to be included in the proxy statement for the next annual meeting of our stockholders to be held in 2025 must also satisfy the requirements of SEC Rule 14a-8 under the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and be received not later than _____, 2025. If the date of the annual meeting is moved by more than 30 days from the first anniversary of the previous year's proxy statement, then notice must be received within a reasonable time before we begin to print and send proxy materials. If that happens, we will publicly announce the deadline for submitting a proposal in a press release or in a document filed with the SEC.

In addition, to comply with the SEC's universal proxy rules, stockholders intending to solicit proxies in support of director nominees other than the Company's nominees must provide notice that sets forth the information required by Rule 14a-19 under the Exchange Act no later than April 14, 2025.

How can I know the voting results?

We plan to announce preliminary voting results at the Annual Meeting and will publish final results in a Current Report on Form 8-K to be filed with the SEC within four business days following the Annual Meeting.

PROPOSAL NO. 1 — ELECTION OF DIRECTORS

Our Board currently consists of four members. In accordance with the terms of our Charter and Bylaws, our Board comprises only one class, and all directors serve until the next annual meeting of the stockholders, or until their successors are elected and qualified, or until their earlier death, retirement, resignation or removal.

Our Charter and Bylaws provide that the authorized number of directors may be changed only by resolution of our Board. Our Charter also provides that our directors may be removed only for cause upon the affirmative vote of the holders of at least two-thirds (2/3) of the outstanding shares then entitled to vote in an annual election of directors, and that any vacancy on our Board, including a vacancy resulting from an enlargement of our Board, may be filled only by vote of a majority of our directors then in office.

Our Board has nominated Philippe P. Calais, PharmD, PhD, Thomas A. Fitzgerald, Erik Manting, PhD, and Magda Marquet, PhD, for election at the Annual Meeting. Each of the nominees is currently a director, and each has indicated a willingness to continue to serve as a director, if elected.

Our nominating and corporate governance committee policies and procedures for director candidates (the “Director Guidelines”) provide that the value of diversity should be considered in determining director candidates as well as other factors such as a candidate’s character, judgment, skills, education, expertise and absence of conflicts of interest. However, we do not have a formal policy concerning the diversity of the Board. Our priority in selection of Board members is identification of members who will further the interests of our stockholders through their established records of professional accomplishment, their ability to contribute positively to the collaborative culture among Board members, their knowledge of our business and understanding of the competitive landscape in which we operate, and their adherence to high ethical standards.

In addition to the information presented below regarding each of the nominees and continuing directors’ specific experience, qualifications, attributes and skills that our Board and our nominating and corporate governance committee considered in determining that he or she should serve as a director, we also believe that each of our directors has demonstrated business acumen, integrity and an ability to exercise sound judgment, as well as a commitment of service to TransCode, our Board and our stockholders.

Nominees for Election as Directors

The following table identifies our director nominees, and sets forth their principal occupation and business experience during the last five years, and their ages as of the Record Date.

Name	Positions and Offices Held with the Company	Director Since	Age
Philippe P. Calais, PharmD, PhD	Director and Chairman of the Board	2018	65
Thomas A. Fitzgerald	Interim Chief Executive Officer, Chief Financial Officer, Vice President, and Director	2018	73
Erik Manting, PhD	Director	2020	52
Magda Marquet, PhD	Director	2021	65

Philippe P. Calais, PharmD, PhD has served as a member of our Board since October 2018 and was elected chairman of the Board in January 2021. Dr. Calais has over 37 years of biotech and pharmaceutical industry experience both in North America and Europe, and is the President, Chief Executive Officer and director at MatriSys Bioscience, Inc. Since May 2019, Dr. Calais has also been the executive chairman and founder of Phileas Pharma, Inc. Previously, Dr. Calais served as the President and Chief Executive Officer of Isarna Therapeutics B.V., a developer of oligonucleotide therapeutics in Germany, the Netherlands and the United States from March 2012 to June 2018. Dr. Calais was a director of CohBar, Inc. (Nasdaq: CWBR) from June 2018 to June 2020 and was the company’s interim CEO from December 2019 to May 2019. Prior to Isarna Therapeutics, Dr. Calais was the President and CEO of Univalor, a Canadian technology transfer organization, from April 2011 to February 2012. He has also been an Economic Advisor to the French government since 2013. Dr. Calais served as Chief Executive Officer, President and director of Ambrilia Biopharma, Inc., (TSE: AMB) from January 2008 to July 2009. He served as President Global

Business of Neurochem Inc. (Nasdaq: NRMX) from January 2003 to December 2007, focusing on corporate strategic positioning and company deployment. He served as Chairman of the Board of Neurochem International, a wholly owned subsidiary of Neurochem Inc. from March 2003 to December 2007. He was an independent director at Marina Biotech, Inc. (OTCBB: MRNX) from January 2017 until May 2018, and its lead independent director from October 2017 to May 2018. He served as a board member of Autotelic Inc. from June 2016 to June 2018. He served as Director of Canada's Research Based Pharmaceutical Companies from 2002 to 2011; the Cité des Biotechs de Laval from February 2002 to February 2012; Cognisense from December 2010 to February 2012; and Medpharmgene from January 2011 to February 2012. Dr. Calais holds a bachelor's degree in pharmacy, a Doctor of Pharmacy and a Doctor of Philosophy from the Université François-Rabelais in Tours, France. We believe that Dr. Calais is qualified to serve on our Board due to his management experience in the pharmaceutical and biotherapeutics industries and his experience as an executive officer and board member of several biotechnology companies.

Thomas A. Fitzgerald, MBA has served as interim Chief Executive Officer since January 2024 and as Vice President, Chief Financial Officer and Director of TransCode since July 2018 (initially part-time and substantially full-time since January 2020). From August 2006 to December 2018 (the last 15 months on a half-time basis), he served as Chief Financial Officer of Velico Medical, Inc. Prior to Velico Medical, his experience included serving as founding Managing Director of the Corporate Finance/Investment Banking unit of Leerink Partners LLC (f/k/a SVB Leerink LLC and, previously, Leerink Swann & Company), a healthcare investment banking firm. Mr. Fitzgerald served in the U.S. Army, including nearly two years as an airborne-qualified infantry officer. He received an A.B. in Economics with Honors from Stanford University and an M.B.A. from the Harvard University Graduate School of Business Administration. We believe Mr. Fitzgerald is qualified to serve on our Board because he brings extensive experience as a senior financial executive in the life sciences industry.

Erik Manting, PhD has served on our Board since December 2020. Dr. Manting served as Managing Director and Chief Executive Officer of DCPrime BV, an immuno-oncology company based in the Netherlands, from March 2018 until DCPrime's December 2020 merger with Immunicum AB, a listed Swedish biotechnology company. On June 23, 2022, Immunicum AB changed its name to Mendus AB. Dr. Manting currently serves as Chief Executive Officer of Mendus AB. He has also served as a supervisory board member of Synerkine Pharma BV, a biopharmaceutical company, since March 2019 and as founder of BioEntrepreneur BV, a consulting company, since September 2017. Prior to that, he served as executive director of life sciences and healthcare at Kempen & Co, an investment bank, from October 2012 to September 2017. He received a Master of Science in Medical Biology and a Doctor of Philosophy from University of Groningen. We believe that Dr. Manting is qualified to serve on our Board due to his extensive commercial and managerial experience in banking and as an executive officer and board member of several biotechnology companies.

Magda Marquet, PhD has served on our Board since January 2021. Dr. Marquet has served as co-founder and co-chief executive officer of ALMA Life Sciences LLC, an early-stage healthcare investment firm, since 2013. Dr. Marquet also has been a co-founder of AltheaDx, a biotechnology company, since 2009. Dr. Marquet previously served as the co-founder and chairman of Althea Technologies, a biotechnology company, from 2009 to 2019, and previously served as its co-president and co-chief executive officer from 1998 to 2009. Prior to starting Althea Technologies, Dr. Marquet held several positions in product development and pharmaceutical development in companies such as Vical and Amylin Pharmaceuticals. Dr. Marquet has served on the board of directors of Pfenex (Nasdaq: PFNX), a biotechnology company, from 2019 until its acquisition by Ligand Pharmaceuticals as well as several private company boards. She currently serves on the board of directors of Arcturus Therapeutics (Nasdaq: ARCT), AnaptysBio (Nasdaq: ANAB) and Immix BioPharma (Nasdaq: IMMIX). Dr. Marquet holds a PhD in Biochemical Engineering from INSA/University of Toulouse, France. We believe that Dr. Marquet is qualified to serve on our Board due to her significant experience as an executive and director of a number of companies in the life sciences sector, and because of her management and clinical expertise.

Vote Required and Board of Directors' Recommendation

The nominees for director who receive the most FOR votes (also known as a plurality) will be elected. You may vote either FOR all the nominees, FOR any one or more of the nominees, WITHHOLD your vote

from all the nominees or WITHHOLD your vote from any one or more of the nominees. Votes that are withheld will have no effect on the results of the vote on this matter. If your shares are held in “street name” by a broker, bank or other nominee, your broker, bank or other nominee does not have authority to vote your unvoted shares held by that firm for the election of directors. As a result, any shares not voted by you will be treated as broker non-votes. Such broker non-votes will have no effect on the results of the vote on this matter.

Proxies will be voted in favor of the above nominees unless a contrary specification is made in your proxy. The nominees have consented to serve as our directors if elected. However, if any nominee is unable to serve or for good cause will not serve as a director, the proxies will be voted for the election of such substitute nominee as our Board may designate.

The proposal for the election of directors relates solely to the election of directors nominated by our Board.

The Board recommends voting ‘FOR’ the election of Philippe P. Calais, PharmD, PhD, Thomas A. Fitzgerald, Erik Manting, PhD, and Magda Marquet, PhD, as directors to serve for a one-year term ending at the annual meeting of stockholders to be held in 2025.

There are no family relationships between or among any of our directors or executive officers. The principal occupation and employment during the past five years of each of our directors was carried on, in each case except as specifically identified in this Proxy Statement, with a corporation or organization that is not a parent, subsidiary or other affiliate of ours. There is no arrangement or understanding between any of our directors and any other person or persons pursuant to which he or she is or was to be selected as a director.

There are no material legal proceedings to which any of our directors is a party adverse to us or in which any such person has a material interest adverse to us.

Executive Officer

The following table identifies our executive officer and sets forth his current positions at TransCode and his age as of the Record Date. Mr. Fitzgerald’s biography is set forth above.

Name	Position Held with TransCode	Officer Since	Age
Thomas A. Fitzgerald	Interim Chief Executive Officer, Chief Financial Officer, Vice President, and Director	2018	73

Significant Employee and Advisor

The following table identifies our significant employee and advisor and sets forth their current positions at TransCode and their ages as of the Record Date.

Name	Position Held with TransCode	Position Since	Age
Zdravka Medarova, PhD	Scientific Co-Founder, Chief Scientific Officer	2021	49
Anna Moore, PhD	Scientific Co-Founder, Scientific Advisor	2016	61

Zdravka Medarova, PhD, is a Scientific Co-Founder and has served as a member of the advisory board of TransCode since January 2016. Dr. Medarova became an employee of TransCode in October 2021 and was appointed Chief Scientific Officer in January 2024. Dr. Medarova has been on the Faculty of Harvard Medical School and Massachusetts General Hospital (“MGH”) since June 2007 and continues in that capacity on a part-time basis. She has served as an Associate Professor of Radiology at Harvard Medical School from April 2016 and as an Assistant in Neuroimaging at the Athinoula A. Martinos Center for Biomedical Imaging at MGH since June 2007. Dr. Medarova is a geneticist/cancer biologist by training and is internationally recognized for her work on non-coding RNA cancer therapies. She is one of the first to

describe the design and application of nanoparticles as carriers of siRNA to tumors. Her research has focused on developing nanotechnology and imaging tools to better understand cancer initiation and progression and applying this knowledge to designing clinically relevant therapeutic and diagnostic agents against cancer. Dr. Medarova obtained a BA in pre-medicine from the University of Southern Maine in September 1998 and a PhD in Genetics from the University of New Hampshire in December 2002.

Anna Moore, PhD, is a Scientific Co-Founder of TransCode and has served as our Scientific Advisor since January 2016. Dr. Moore has served as a Professor of Radiology and Physiology; Director, Precision Health Program and Assistant Dean, College of Human Medicine at Michigan State University, since January 1, 2018. Prior to joining Michigan State University, Dr. Moore was Professor of Radiology at Harvard Medical School from September 1991 to December 2017 and the Director of the Molecular Imaging Laboratory at the Athinoula A. Martinos Center for Biomedical Imaging at MGH from September 1991 to December 2017. She is a past member of the Board of Trustees of the World Molecular Imaging Society (“WMIS”) and a past member of the executive committee of the WMIS. She has served as the Regional (US) Editor for *Molecular Imaging and Biology*, the official journal of WMIS, since July 2015. Dr. Moore holds a PhD in Bioorganic Chemistry from the Russian Academy of Sciences, Moscow, Russia.

The principal occupation and employment during the past five years of our executive officer, our significant employee and our advisor was carried on, in each case except as specifically identified in this Proxy Statement, with a corporation or organization that is not a parent, subsidiary or other affiliate of ours. There is no arrangement or understanding between our executive officer and any other person or persons pursuant to which he was or is to be selected as an executive officer.

There are no material legal proceedings to which our executive officer is a party adverse to us or in which such person has a material interest adverse to us.

**PROPOSAL NO. 2 — APPROVAL OF AN AMENDMENT TO THE TRANSCODE THERAPEUTICS, INC.
2021 STOCK OPTION AND INCENTIVE PLAN**

Proposal

On April 25, 2024, upon the recommendation of the compensation committee, the Board approved Amendment No. 1 (the “Plan Amendment”) to the TransCode Therapeutics, Inc. 2021 Stock Option and Incentive Plan (the “2021 Plan” and, as amended, the “Amended Plan”), to increase the number of shares of Common Stock reserved for issuance thereunder by 3,000,000 shares (the “Share Increase”). The Share Increase and a corresponding increase in the incentive stock option limit under the 2021 Plan are the only proposed changes under the Plan Amendment.

Based solely on the closing price of our Common Stock as reported on the Nasdaq Capital Market on April 22, 2024, and the maximum number of shares that would have been available for awards as of such date under the Amended Plan had it been in effect on such date, the maximum aggregate market value of the Common Stock that could potentially be issued under the Amended Plan is \$1,379,078.

If this proposal is approved by our stockholders at the Annual Meeting, the Plan Amendment will become effective on the date of the Annual Meeting. If stockholders do not approve this proposal, then the Share Increase will not take effect, and the 2021 Plan will otherwise remain in effect in accordance with its terms.

Rationale for Share Increase

The Plan Amendment is critical to our ongoing effort to build stockholder value. Equity incentive awards are an important component of our executive and non-executive employees’ compensation. We operate in a highly competitive talent market. Our future success depends to a great extent on our continuing ability to attract, develop, motivate and retain leading scientific and technical personnel. Our compensation committee and our Board believe that we must continue to offer a competitive equity compensation program in order to do so.

Our compensation philosophy includes providing long-term equity incentive awards to our employees. We believe this helps motivate and retain them and aligns their interests with those of our stockholders by allowing them to participate in our longer-term success. The potential for appreciation in the price of our Common Stock also creates an opportunity for employees to think and act as owners of the Company.

As of April 22, 2024, only 5,181 shares of Common Stock were available for issuance under our 2021 Plan. The Board and compensation committee have determined that this share reserve is not sufficient for equity awards expected for the remainder of 2024 and beyond. Our practice has generally been to grant equity awards that have a target value equal to a dollar amount that our compensation committee determines is competitive with the target value of long-term incentive awards granted by our peers, taking into account our overall pay mix relative to our peers and the appropriate balance between annual cash incentives and equity awards. Equity awards are, therefore, a critical piece of our compensation program necessary for our growth and success. During the difficult times in the capital markets of 2022 and 2023, our stock price declined significantly. The Board and compensation committee do not believe that the decline in our share price reflects the work and dedication of our employees and advisors. In fact, the Board and compensation committee believe that our employees and advisors have performed extremely well despite the significant challenges TransCode has faced.

We have prepared the following analysis to illustrate the effect of the Share Increase:

	Actual 31-Dec-2022	Notes	Pro Forma For Proposed Increase 22-Apr-24	Notes
Base Shares	12,977,234	A	18,507,299	B
Options	3,017,033	C	3,000,000	D
Total Base Shares and Options	15,994,267		21,507,299	
<u>Options as a Percent of:</u>				
Base Shares	23.2%		16.2%	
Total Base Shares and Options	18.9%		13.9%	
<u>Notes</u>				
A. Prior to reverse stock splits				
B. Comprises:				
Common Shares at April 22, 2024			6,108,053	
Unexercised Prefunded Warrants			514,000	
Warrants to purchase Common Stock exercisable at \$1.22 per share			11,885,246	
			18,507,299	
C. Options outstanding at December 31, 2022				
D. Proposed Share Increase				

We believe the Share Increase is necessary for us to continue to offer an equity incentive program that enables us to recruit, motivate and retain talented and highly qualified employees, directors and advisors who are critical to our future plans and our ability to successfully operate our business. While the Board and the compensation committee have considered alternatives to the issuance of equity awards as a means to provide long-term incentives to our employees, including the adoption of additional cash-based incentives, our Board and compensation committee believe equity awards are the most effective long-term incentive mechanism for value generation. In addition, offering additional cash-based incentives in lieu of equity awards could have a significant effect on our financial and operating results and reduce the alignment between the interests of our employees and those of our stockholders.

The Board and compensation committee believe that approving the Share Increase is in the best interests of stockholders.

Summary of the Amended Plan

The following description of certain features of the Amended Plan is intended to be a summary only. The full text of the 2021 Plan was filed as an exhibit to our 2023 Annual Report filed with the SEC on April 1, 2024, and the Plan Amendment is attached hereto as [Appendix A](#).

Share Reserve. The maximum number of shares available for issuance under the Amended Plan is (1) 3,005,181 (the “Initial Limit”); plus (2) an annual increase (the “Annual Increase”) on each January 1, beginning on January 1, 2025, equal to the lesser of (i) 5% of the outstanding number of shares of our Common Stock on the immediately preceding December 31; and (ii) the number of shares determined by the administrator of the Amended Plan. The shares of Common Stock underlying any awards under the Amended Plan that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without the issuance of stock, or are otherwise terminated (other than by exercise) are added back to the shares of Common Stock available for issuance under the Amended Plan.

Administration. The Amended Plan will continue to be administered by the compensation committee. The compensation committee has full power to select, from among the individuals eligible for awards, the

individuals to whom awards will be granted, to make any combination of awards to participants, and to determine the specific terms and conditions of each award, subject to the provisions of the Amended Plan. The compensation committee may delegate to a committee consisting of one or more of our officers the authority to grant awards to employees who are not subject to the reporting and other provisions of Section 16 of the Exchange Act, subject to certain limitations and guidelines.

Eligibility; Plan Limits. All of our employees, non-employee directors, consultants and advisors are eligible to participate in the Amended Plan, subject to the discretion of the administrator. As of April 22, 2024, 29 individuals would have been eligible to participate in the Amended Plan had it been effective on such date, which includes one executive officer, nine employees who are not executive officers, three non-employee directors and 16 consultants and advisor. There are certain limits on the number of awards that may be granted under the Amended Plan. For example, the maximum number of shares that may be issued in the form of incentive stock options shall not exceed the Initial Limit, cumulatively increased on January 1, 2025, and on each January 1 thereafter by the lesser of the Annual Increase for such year and 300,000 shares of Common Stock.

Director Compensation Limit. The Amended Plan provides that the value of all awards made under the Amended Plan and all other cash compensation paid by us to any non-employee director in any calendar year shall not exceed \$500,000; provided, however, that such amount shall be \$1,000,000 for the calendar year in which the applicable non-employee director is initially elected or appointed to the Board.

Stock Options. The Amended Plan permits the granting of (1) options to purchase Common Stock intended to qualify as incentive stock options under Section 422 of the Internal Revenue Code of 1986, as amended (the “Code”), and (2) options that do not so qualify. Options granted under the Amended Plan will be non-qualified options if they fail to qualify as incentive stock options or exceed the annual limit on incentive stock options. Incentive stock options may only be granted to employees of TransCode and its subsidiaries. Non-qualified options may be granted to employees, non-employee directors, consultants and advisors. The option exercise price of each option will be determined by the compensation committee. Except in the case of options (i) granted pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code, (ii) granted to individuals who are not subject to U.S. income tax on the date of grant or (iii) that are compliant with Section 409A of the Code, the exercise price of an option may not be less than 100% of the fair market value of the Common Stock on the date of grant. Fair market value for this purpose is determined by reference to the price of shares of our Common Stock on the Nasdaq Capital Market.

The term of each option is fixed by the compensation committee and may not exceed ten years from the date of grant. The compensation committee determines at what time or times each option may be exercised. Options may be made exercisable in installments and the exercisability of options may be accelerated by the compensation committee. In general, unless otherwise permitted by the compensation committee, no option granted under the Amended Plan is transferable by the optionee other than by will or by the laws of descent and distribution or pursuant to a domestic relations order, and options may be exercised during the optionee’s lifetime only by the optionee, or by the optionee’s legal representative or guardian in the case of the optionee’s incapacity.

Upon exercise of options, the option exercise price must be paid in full either in cash, by certified or bank check or other instrument acceptable to the compensation committee or by delivery (or attestation to the ownership) of shares of Common Stock that are beneficially owned by the optionee and that are not subject to risk of forfeiture. Subject to applicable law, the exercise price may also be delivered to us by a broker pursuant to irrevocable instructions to the broker from the optionee. In addition, non-qualified options may be exercised using a net exercise feature which reduces the number of shares issued to the optionee by the number of shares with a fair market value equal to the exercise price.

To qualify as incentive stock options, options must meet additional federal tax requirements, including a \$100,000 limit on the value of shares subject to incentive stock options that first become exercisable by a participant in any one calendar year.

Stock Appreciation Rights. The compensation committee may award stock appreciation rights subject to such conditions and restrictions as the compensation committee may determine. Stock appreciation rights

entitle the recipient to shares of Common Stock or cash equal to the value of the appreciation in the stock price over the exercise price. The exercise price may not be less than the fair market value of the Common Stock on the date of grant. The term of a stock appreciation right may not exceed ten years.

Restricted Stock. The compensation committee may award shares of Common Stock to participants subject to such conditions and restrictions as the compensation committee may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment (or other service relationship) with us through a specified restricted period.

Restricted Stock Units. The compensation committee may award restricted stock units to participants. Restricted stock units are ultimately payable in the form of shares of Common Stock or cash subject to such conditions and restrictions as the compensation committee may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment (or other service relationship) with us through a specified vesting period. In the compensation committee's sole discretion, it may permit a participant to make an advance election to receive a portion of such participant's future cash compensation otherwise due in the form of a restricted stock unit award, subject to the participant's compliance with the procedures established by the compensation committee and requirements of Section 409A of the Code.

Unrestricted Stock Awards. The compensation committee may also grant (or sell at par value or such higher price determined by the compensation committee) shares of Common Stock that are free from any restrictions under the Amended Plan. Unrestricted stock may be granted to any participant in recognition of past services or other valid consideration and may be issued in lieu of cash compensation due to such participant.

Dividend Equivalent Rights. The compensation committee may grant dividend equivalent rights to participants, which entitle the recipient to receive credits for dividends that would be paid if the recipient had held specified shares of Common Stock. Dividend equivalent rights may be granted as a component of an award of restricted stock units or as a freestanding award and will be paid only if and to the extent the related award becomes vested. Dividend equivalent rights may not be granted as a component of a stock option or stock appreciation right award. Dividend equivalent rights may be settled in cash, shares of Common Stock or a combination thereof, in a single installment or installments, as specified in the award.

Cash-Based Awards. The compensation committee may grant cash bonuses under the Amended Plan to participants. The cash bonuses may be subject to the achievement of certain performance goals.

Change of Control Provisions. In the event of a "sale event," as defined in the Amended Plan, awards under the Amended Plan may be assumed, continued or substituted. In the event that awards are not assumed, continued or substituted, except as otherwise provided in the award agreement, upon the effective time of the sale event, all awards with time-based conditions or restrictions will become vested and exercisable or nonforfeitable upon the sale event, and awards with conditions and restrictions relating to the attainment of performance goals may become vested and exercisable or nonforfeitable in connection with a sale event, in the compensation committee's discretion or to the extent specified in the relevant award agreement. In addition, we may make or provide for payment, in cash or in kind, to participants holding options and stock appreciation rights equal to the difference between the per share cash consideration and the exercise price of the options or stock appreciation rights (provided that, in the case of an option or stock appreciation right with an exercise price equal to or greater than the per share cash consideration, such option or stock appreciation right shall be cancelled for no consideration). We may also make or provide for a payment, in cash or in kind, to grantees holding other awards in an amount equal to the per share cash consideration multiplied by the number of vested shares under such awards. All awards will terminate in connection with a sale event unless they are assumed by the successor entity.

Adjustments for Stock Dividends, Stock Splits, Etc. The Amended Plan requires the compensation committee to make appropriate adjustments to the number of shares of Common Stock that are subject to the Amended Plan, to certain limits in the Amended Plan and to any outstanding awards to reflect stock dividends, stock splits, extraordinary cash dividends and similar events.

Tax Withholding. Participants in the Amended Plan are responsible for the payment of any federal, state or local taxes that the Company is required by law to withhold upon the exercise of options or stock

appreciation rights or vesting of other awards. The compensation committee may require our tax withholding obligations to be satisfied by withholding shares of Common Stock to be issued pursuant to exercise or vesting. The compensation committee may also require our tax withholding obligation to be satisfied, in whole or in part, by an arrangement whereby a certain number of shares issued pursuant to any award are immediately sold and proceeds from such sale are remitted to us in an amount that would satisfy the withholding amount due.

Amendments and Termination. The Board may at any time amend or discontinue the Amended Plan and the compensation committee may at any time amend or cancel any outstanding award for the purpose of satisfying changes in the law or for any other lawful purpose. However, no such action may adversely affect any rights under any outstanding award without the holder's consent. The compensation committee is specifically authorized to exercise its discretion to reduce the exercise price of outstanding stock options and stock appreciation rights or effect the repricing of such awards through cancellation and re-grants without stockholder consent. To the extent required under the rules of the Nasdaq Stock Market, LLC ("Nasdaq"), any amendments that materially change the terms of the Amended Plan will be subject to approval by our stockholders. Amendments will also be subject to approval by our stockholders if and to the extent determined by the compensation committee to be required by the Code to preserve the qualified status of incentive stock options.

Effective Date of Plan Amendment. The Plan Amendment was approved by our Board on April 25, 2024. No awards may be granted under the Amended Plan after March 22, 2031.

Plan Benefits

Since the initial approval of the 2021 Plan through April 22, 2024, the following number of equity awards have been granted to the individuals and groups described in the table below. No other equity awards have been granted to any other individuals or groups under the 2021 Plan as of such date.

Name and Position	Number of Shares of Common Stock Underlying Options
Robert Michael Dudley	1,256
Thomas A. Fitzgerald	606
Current executive officers, as a group	606
Current directors who are not executive officers, as group	240
Current employees who are not executive officers, as a group	2,028
Current advisors and consultants who are not directors or executive officers, as group	125

New Plan Benefits

Because the grant of awards under the Amended Plan is within the discretion of the compensation committee, we cannot determine the dollar value or number of shares of Common Stock that will in the future be received by or allocated to any participant in the Amended Plan.

Tax Aspects Under the Code

The following is a summary of the principal federal income tax consequences of certain transactions under the Amended Plan. It does not describe all federal tax consequences under the Amended Plan, nor does it describe state or local tax consequences.

Incentive Stock Options. No taxable income is generally realized by the optionee upon the grant or exercise of an incentive stock option. If shares of Common Stock issued to an optionee pursuant to the exercise of an incentive stock option are sold or transferred after two years from the date of grant and after one year from the date of exercise, then (i) upon sale of such shares, any amount realized in excess of the exercise price (the amount paid for the shares) will be taxed to the optionee as a long-term capital gain, and any loss sustained will be a long-term capital loss, and (ii) we will not be entitled to any deduction for

federal income tax purposes. The exercise of an incentive stock option will give rise to an item of tax preference that may result in alternative minimum tax liability for the optionee.

If shares of Common Stock acquired upon the exercise of an incentive stock option are disposed of prior to the expiration of the two-year and one-year holding periods described above (a “disqualifying disposition”), generally (i) the optionee will realize ordinary income in the year of disposition in an amount equal to the excess (if any) of the fair market value of the shares of Common Stock at exercise (or, if less, the amount realized on a sale of such shares of Common Stock) over the exercise price thereof, and (ii) we will be entitled to deduct such amount. Special rules will apply where all or a portion of the exercise price of the incentive stock option is paid by tendering shares of Common Stock.

If an incentive stock option is exercised at a time when it no longer qualifies for the tax treatment described above, the option is treated as a non-qualified stock option. Generally, an incentive stock option will not be eligible for the tax treatment described above if it is exercised more than three months following termination of employment (or one year in the case of termination of employment by reason of disability). In the case of termination of employment by reason of death, the three-month rule does not apply.

Non-Qualified Stock Options. No income is realized by the optionee at the time a non-qualified stock option is granted. Generally (i) at exercise, ordinary income is realized by the optionee in an amount equal to the difference between the exercise price and the fair market value of the shares of Common Stock on the date of exercise, and we receive a tax deduction for the same amount, and (ii) at disposition, appreciation or depreciation after the date of exercise is treated as either short-term or long-term capital gain or loss depending on how long the shares of Common Stock have been held. Special rules will apply where all or a portion of the exercise price of the non-qualified stock option is paid by tendering shares of Common Stock. Upon exercise, the optionee will also be subject to Social Security taxes on the excess of the fair market value over the exercise price of the option.

Other Awards. We generally will be entitled to a tax deduction in connection with other awards under the Amended Plan in an amount equal to the ordinary income realized by the participant at the time the participant recognizes such income. Participants typically are subject to income tax and recognize such tax at the time that an award is exercised, vests or becomes non-forfeitable, unless the award provides for a further deferral.

Parachute Payments. The vesting of any portion of an award that is accelerated due to the occurrence of a change in control (such as a sale event) may cause a portion of the payments with respect to such accelerated awards to be treated as “parachute payments” as defined in the Code. Any such parachute payments may be non-deductible to the Company, in whole or in part, and may subject the recipient to a non-deductible 20% federal excise tax on all or a portion of such payment (in addition to other taxes ordinarily payable).

Limitation on Deductions. Under Section 162(m) of the Code, our deduction for awards under the Amended Plan may be limited to the extent that any “covered employee” (as defined in Section 162(m) of the Code) receives compensation in excess of \$1 million a year.

VOTE REQUIRED

Approval of the Plan Amendment requires the affirmative vote of a majority of the shares of Common Stock present or represented by proxy and voted FOR or AGAINST such matter (Proposal No. 2). Abstentions and broker non-votes will not be counted as votes cast or voted on Proposal No. 2. Accordingly, abstentions and broker non-votes will have no effect on the voting on Proposal No. 2.

The Board recommends voting ‘FOR’ Proposal No. 2, an amendment to the TransCode Therapeutics, Inc. 2021 Stock Option and Incentive Plan to increase the number of shares available for issuance thereunder by 3,000,000 shares.

**PROPOSAL NO. 3 — RATIFICATION OF THE APPOINTMENT OF WITHUMSMITH+BROWN, PC AS
TRANSCODE’S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL
YEAR ENDING DECEMBER 31, 2024**

TransCode’s stockholders are being asked to ratify the appointment by the audit committee of the Board of WithumSmith+Brown, PC as TransCode’s independent registered public accounting firm for the fiscal year ending December 31, 2024. WithumSmith+Brown, PC has served as TransCode’s independent registered public accounting firm since 2020.

The audit committee is solely responsible for selecting TransCode’s independent registered public accounting firm for the fiscal year ending December 31, 2024. Stockholder approval is not required to appoint WithumSmith+Brown, PC as TransCode’s independent registered public accounting firm. However, the Board believes that submitting the appointment of WithumSmith+Brown, PC to the stockholders for ratification is good corporate governance. If the stockholders do not ratify this appointment, the audit committee will reconsider whether to retain WithumSmith+Brown, PC. If the selection of WithumSmith+Brown, PC is ratified, the audit committee, at its discretion, may direct the appointment of a different independent registered public accounting firm at any time it decides that such a change would be in the best interest of TransCode and its stockholders.

A representative of WithumSmith+Brown, PC is expected to be present at the Annual Meeting and will have an opportunity to make a statement if he or she desires to do so and to respond to appropriate questions from our stockholders.

We incurred the following fees from WithumSmith+Brown, PC for the audit of our financial statements and for other services provided during the fiscal years ended December 31, 2023 and 2022.

Fee Category	Fiscal Year 2023 (\$)	Fiscal Year 2022 (\$)
Audit fees ⁽¹⁾	\$ 161,000	\$ 116,000
Audit-related fees ⁽²⁾	\$ 186,161	\$ 80,000
Tax fees ⁽³⁾	\$ 49,800	\$ 8,000
All other fees ⁽⁴⁾	—	—
Total Fees	\$396,961	\$204,000

- (1) Audit fees consist of fees for the audit of our annual financial statements, and the review of our interim financial statements included in our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, respectively.
- (2) Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of audits or reviews of our financial statements, and which are not included under “Audit fees” above. Audit-related fees include fees related to our financing transactions on Form S-1 and S-3 as well as comfort letters and consents.
- (3) Tax fees consist of fees for tax compliance.
- (4) There were no other fees for fiscal years 2023 and 2022.

Audit Committee Pre-approval Policy and Procedures

Our audit committee has adopted policies and procedures relating to the approval of all audit and non-audit services to be performed by our independent registered public accounting firm. This policy provides that we will not engage our independent registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by our audit committee or the engagement is entered into pursuant to the pre-approval procedure described below.

From time to time, our audit committee may pre-approve specified types of services that are expected to be provided to us by our independent registered public accounting firm during the next 12 months. Any such pre-approval details the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

During fiscal years 2023 and 2022, no services were provided to us by WithumSmith+Brown, PC other than in accordance with the pre-approval policies and procedures described above.

Vote Required and Board of Directors' Recommendation

The affirmative vote of a majority of the votes cast FOR this proposal is required to ratify the appointment of our independent registered public accounting firm. Abstentions will have no effect on the results of this vote. If your shares are held in "street name" by a broker, bank or other nominee, your broker, bank or other nominee has authority to vote your unvoted shares held by that firm on this proposal. If your broker, bank or other nominee does not exercise this authority, such broker non-votes will have no effect on the results of this vote.

The Board recommends voting 'FOR' Proposal No. 3 to ratify the appointment of WithumSmith+Brown, PC as TransCode's independent registered public accounting firm for the fiscal year ending December 31, 2024.

**PROPOSAL NO. 4—APPROVAL GIVING OUR BOARD THE AUTHORITY IN THEIR DISCRETION
TO FILE AN AMENDMENT TO OUR AMENDED AND RESTATED CERTIFICATE OF
INCORPORATION TO EFFECT THE REVERSE STOCK SPLIT**

Background and Proposed Amendment

Our amended and restated certificate of incorporation currently authorizes the Company to issue a total of 300,000,000 shares of capital stock, consisting of 290,000,000 shares of Common Stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share.

On May 7, 2024, subject to stockholder approval, the Board approved an amendment to our Charter to effect, at the discretion of the Board, the Reverse Stock Split at a ratio of 1-for-2 to 1-for-40, with the exact ratio within such range to be determined by the Board if it determines that doing so is in the best interests of our stockholders. The primary goal of the Reverse Stock Split is to increase the per share market price of our Common Stock to meet the minimum per share bid price requirements for continued listing on Nasdaq. We believe that a range of Reverse Stock Split ratios provides us with the most flexibility to achieve the objectives of the Reverse Stock Split. The Reverse Stock Split is not intended as, and will not have the effect of, a “going private transaction” covered by Rule 13e-3 promulgated under Exchange Act. The Reverse Stock Split is not intended to modify the rights of existing stockholders in any material respect.

If the Reverse Stock Split Proposal is approved by our stockholders and the Reverse Stock Split is effected, up to every 40 shares of our outstanding Common Stock would be combined and reclassified into one share of Common Stock. If the Board determines to effect the Reverse Stock Split, the timing for implementation of the Reverse Stock Split would be determined by the Board based upon its evaluation as to when such action would be most advantageous to the Company and its stockholders. Notwithstanding approval of the Reverse Stock Split Proposal by our stockholders, the Board will have the sole authority to elect whether or not, and when, to amend our amended and restated certificate of incorporation to effect the Reverse Stock Split. If the Reverse Stock Split Proposal is approved by our stockholders, the Board will make a determination as to whether effecting the Reverse Stock Split is in the best interests of the Company and our stockholders in light of, among other things, the Company’s ability to increase the trading price of our Common Stock to meet the minimum stock price standards of Nasdaq without effecting the Reverse Stock Split, the per share price of the Common Stock immediately prior to the Reverse Stock Split and the expected stability of the per share price of the Common Stock following the Reverse Stock Split. If the Board determines that it is in the best interests of the Company and its stockholders to effect the Reverse Stock Split, it will hold a Board meeting to determine the ratio of the Reverse Stock Split. For additional information concerning the factors the Board will consider in deciding whether to effect the Reverse Stock Split, see “— *Determination of the Reverse Stock Split Ratio*” and “— *Board Discretion to Effect the Reverse Stock Split*.”

The text of the proposed amendment to the Company’s amended and restated certificate of incorporation to effect the Reverse Stock Split is included as Appendix B to this proxy statement. If the Reverse Stock Split Proposal is approved by the Company’s stockholders, the Company will have the authority to file the Reverse Stock Split Amendment with the Secretary of State of the State of Delaware, which will become effective upon its filing; *provided, however*, that the Reverse Stock Split Amendment is subject to revision to include such changes as may be required by the office of the Secretary of State of the State of Delaware and as the Board deems necessary and advisable. The Board has determined that the amendment is advisable and in the best interests of the Company and its stockholders and has submitted the amendment for consideration by our stockholders at the Annual Meeting.

Reasons for the Reverse Stock Split Amendment

We are submitting this proposal to our stockholders for their approval in order to increase the trading price of our Common Stock to meet the minimum per share bid price requirement for continued listing on The Nasdaq Capital Market. We believe increasing the trading price of our Common Stock may also assist in our capital-raising efforts by making our Common Stock more attractive to a broader range of investors. Accordingly, we believe that the Reverse Stock Split is in our stockholders’ best interests.

We believe that the Reverse Stock Split, if necessary, is our best option to meet the criteria to satisfy the minimum per share bid price requirement for continued listing on The Nasdaq Capital Market. The Nasdaq Capital Market requires, among other criteria, that the Company generally maintain a closing bid price of at least \$1.00 per share. On the Record Date, the last reported sale price of our Common Stock on The Nasdaq Capital Market was \$0.4589 per share. On the date of the mailing of this proxy statement, our Common Stock was listed on the Nasdaq Capital Market under the symbol “RNAZ.” The continued listing requirements of Nasdaq, among other things, require that our Common Stock maintain a closing bid price generally in excess of \$1.00 per share. We have in the past, and may in the future, be unable to comply with certain of the listing standards required to maintain the listing of our Common Stock on Nasdaq.

On November 7, 2023, we received a deficiency letter from the Listing Qualifications Department (the “Staff”) of the Nasdaq notifying us that, for the 30 consecutive business day period between September 26, 2023, through November 6, 2023, our Common Stock had not maintained a minimum closing bid price of \$1.00 per share, or the Minimum Bid Price Requirement, required for continued listing on The Nasdaq Capital Market pursuant to Nasdaq Listing Rule 5550(a)(2). Nasdaq provided us an initial period of 180 calendar days, or until May 6, 2024, or the Compliance Date, to regain compliance with the Minimum Bid Price Requirement. If, at any time during this 180-day period, the closing bid price for our Common Stock was \$1.00 per share or more for a minimum of 10 consecutive business days, the Staff would have provided us written notification that we have complied with the Minimum Bid Price Requirement and the Common Stock will continue to be eligible for listing on the Exchange.

On May 7, 2024, we were notified by the Staff that our Common Stock had not regained compliance with the Nasdaq Listing Rule 5550(a)(2) and we are ineligible for an additional 180 day period. Accordingly, unless we request an appeal of this determination, the Staff has determined that our Common Stock will be scheduled for delisting from The Nasdaq Capital Market and will be suspended at the opening of business on May 16, 2024, and a Form 25-NSE will be filed with the SEC, which will remove our Common Stock from listing and registration on Nasdaq. We intend to appeal the Staff’s determination to a Hearings Panel (the “Panel”), pursuant to the procedures set forth in the Nasdaq Listing Rule 5800 Series, which must be submitted electronically no later than 4:00 p.m. Eastern Time on May 14, 2024. A hearing request will stay the suspension of the listing of our Common Stock and the filing of the Form 25-NSE pending the Panel’s decision. There can be no assurance that if we do appeal the Staff’s delisting determination to the Panel, such appeal would be successful.

In addition, as noted above, we believe that the Reverse Stock Split and the resulting increase in the per share price of our Common Stock could encourage increased investor interest in our Common Stock. A greater price per share of our Common Stock could allow a broader range of institutions to invest in our Common Stock (namely, funds that are prohibited or discouraged from buying stocks with a price below a certain threshold), potentially increasing marketability, trading volume and liquidity of our Common Stock. Many institutional investors view stocks trading at low prices as unduly speculative in nature and, as a result, avoid investing in such stocks. We believe that the Reverse Stock Split will provide flexibility to make our Common Stock a more attractive investment for these institutional investors, which we believe may enhance the liquidity of trading in our Common Stock and facilitate future sales of our Common Stock. The Reverse Stock Split could also increase interest in our Common Stock among analysts and brokers who may otherwise have policies that discourage or prohibit them from following or recommending companies with low stock prices. Additionally, because brokers’ commissions on transactions in low-priced stocks generally represent a higher percentage of the stock price than commissions on higher-priced stocks, the current average price per share of our Common Stock can result in individual stockholders paying transaction costs representing a higher percentage of their total share value than would be the case if the share price were substantially higher.

Risks Associated with the Reverse Stock Split

The Reverse Stock Split May Not Increase the Price of our Common Stock over the Long-Term. As noted above, the principal purpose of the Reverse Stock Split is to increase the trading price of our Common Stock to meet the minimum stock price standards of Nasdaq. However, the effect of the Reverse Stock Split on the market price of our Common Stock cannot be predicted with any certainty, and we cannot assure you that the Reverse Stock Split will accomplish this objective for any meaningful period of time, or at all.

While we expect that the reduction in the number of outstanding shares of Common Stock will proportionally increase the market price of our Common Stock, we cannot assure you that the Reverse Stock Split will increase the market price of our Common Stock or result in any sustained increase in the market price of our Common Stock. The market price of our Common Stock may be affected by other factors which may be unrelated to the number of shares outstanding, including the Company's business and financial performance, general market conditions, and prospects for future success.

The Reverse Stock Split May Decrease the Liquidity of our Common Stock. The Board believes that the Reverse Stock Split may result in an increase in the market price of our Common Stock, which could lead to increased interest in our Common Stock and possibly promote greater liquidity for our stockholders. However, the Reverse Stock Split will also reduce the total number of outstanding shares of Common Stock, which may lead to reduced trading and a smaller number of market makers for our Common Stock, particularly if the price per share of our Common Stock does not increase as a result of the Reverse Stock Split.

The Reverse Stock Split May Result in Some Stockholders Owning "Odd Lots" That May Be More Difficult to Sell or Require Greater Transaction Costs per Share to Sell. If the Reverse Stock Split is implemented, it will increase the number of stockholders who own "odd lots" of less than 100 shares of Common Stock. A purchase or sale of less than 100 shares of Common Stock (an "odd lot" transaction) may result in incrementally higher trading costs through certain brokers, particularly "full service" brokers. Therefore, those stockholders who own fewer than 100 shares of Common Stock following the Reverse Stock Split may be required to pay higher transaction costs if they sell their Common Stock.

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

Potential Consequences if the Reverse Stock Split Proposal is Not Approved

If the Reverse Stock Split Proposal is not approved by our stockholders, our Board will not have the authority to effect the Reverse Stock Split Amendment to, among other things, facilitate the continued listing of our Common Stock on Nasdaq by increasing the per share trading price of our Common Stock, in our efforts to achieve a share price high enough to satisfy the \$1.00 per share minimum bid price requirement. The inability of our Board to effect the Reverse Stock Split could be a factor resulting in delisting of our Common Stock from trading on Nasdaq.

Treatment of Fractional Shares in the Reverse Stock Split

The Company will not issue fractional certificates for post-reverse stock split shares in connection with the Reverse Stock Split. In lieu of issuing fractional shares, stockholders of record who otherwise would be entitled to receive fractional shares will have their holding of our Common Stock rounded up to the nearest whole number.

Determination of the Reverse Stock Split Ratio

The Board believes that stockholder approval of a range of potential Reverse Stock Split ratios is in the best interests of our Company and stockholders because it is not possible to predict market conditions at the time the Reverse Stock Split might be implemented. We believe that authorization of a range of Reverse Stock Split ratios provides us with the most flexibility to achieve the desired results of the Reverse Stock Split. The Reverse Stock Split ratio to be selected by our Board will be not more than 1-for-40.

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

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

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

Board Discretion to Effect the Reverse Stock Split

If the Reverse Stock Split Proposal is approved by our stockholders, the Board will have the discretion, subject to compliance with applicable Nasdaq rules, to implement the Reverse Stock Split or not to effect the Reverse Stock Split at all. The Board currently intends to effect the Reverse Stock Split. If the trading price of our Common Stock increases without effecting the Reverse Stock Split, the Reverse Stock Split may not be necessary. Following the Reverse Stock Split, if implemented, there can be no assurance that the market price of our Common Stock will rise in proportion to the reduction in the number of outstanding shares resulting from the Reverse Stock Split or that the market price of the post-split Common Stock will remain above \$1.00. There also can be no assurance that our Common Stock will not be delisted from Nasdaq for other reasons.

If our stockholders approve the Reverse Stock Split Proposal at the Annual Meeting, the Reverse Stock Split will be effected, if at all, only upon a determination by the Board that the Reverse Stock Split is in the best interests of the Company and its stockholders at that time. No further action on the part of the stockholders will be required to either effect or abandon the Reverse Stock Split. If our Board does not implement the Reverse Stock Split prior to December 31, 2024, the authority granted in this proposal to implement the Reverse Stock Split will terminate and the Reverse Stock Split Amendment will be abandoned.

The market price of our Common Stock is dependent upon our performance 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 our overall market capitalization may be greater than would occur in the absence of the Reverse Stock Split. Furthermore, the reduced number of shares that will be outstanding after the Reverse Stock Split could significantly reduce the trading volume and otherwise adversely affect the liquidity of our Common Stock.

We have not proposed the Reverse Stock Split in response to any effort of which we are aware to accumulate shares of our Common Stock or obtain control of the Company, nor is it a plan by management to recommend a series of similar actions to our Board or our stockholders. Notwithstanding the decrease in the number of outstanding shares of Common Stock following the Reverse Stock Split, our Board does not intend for this transaction to be the first step in a “going private transaction” within the meaning of Rule 13e-3 of the Exchange Act.

Effectiveness of the Reverse Stock Split

The Reverse Stock Split, if approved by our stockholders, will become effective upon the filing with the Secretary of State of the State of Delaware of a certificate of amendment to our amended and restated

certificate of incorporation in substantially the form of the Reverse Stock Split Amendment attached to this proxy statement as Appendix B. The exact timing of the filing of the Reverse Stock Split Amendment will be determined by the Board based upon its evaluation of when, if at all, such action will be most advantageous to the Company and our stockholders. The Board reserves the right, notwithstanding stockholder approval and without further action by our stockholders, to elect not to proceed with the Reverse Stock Split if, at any time prior to filing such Reverse Stock Split Amendment, the Board, in its sole discretion, determines that it is no longer in the best interests of the Company and our stockholders. The Board currently intends to effect the Reverse Stock Split. If our Board does not implement the Reverse Stock Split prior to December 31, 2024, the authority granted in this proposal to implement the Reverse Stock Split will terminate and the Reverse Stock Split Amendment to effect the Reverse Stock Split will be abandoned.

Effects of the Reverse Stock Split on Issues and Outstanding Common Stock

If the Reverse Stock Split is effected, it will reduce the total number of issued and outstanding shares of Common Stock, including any shares held by the Company as treasury shares, by a Reverse Stock Split ratio in the range of 1-for-2 to 1-for-40. Accordingly, each of our stockholders will own fewer shares of our Common Stock as a result of the Reverse Stock Split. However, the Reverse Stock Split will affect all stockholders uniformly and will not affect any stockholder's percentage ownership interest in the Company, except to the extent that the Reverse Stock Split would result in a small adjustment to a stockholder's ownership of Common Stock due to the effect of rounding up fractional shares in the Reverse Stock Split, as described in more detail herein. Therefore, voting rights and other rights and preferences of holders of our Common Stock will not be affected by the Reverse Stock Split (except for the effect of rounding up fractional shares). Common Stock issued pursuant to the Reverse Stock Split will remain fully paid and nonassessable, and the par value of our Common Stock will remain \$0.0001.

As of the record date, 6,108,053 shares of our Common Stock were outstanding and no shares of Preferred Stock were outstanding. For purposes of illustration, if the Reverse Stock Split is effected at a ratio of 1-for-2, the number of issued and outstanding shares of Common Stock after the Reverse Stock Split would be approximately 3,054,027 shares, and if effected at a ratio of 1-for-40, the number of issued and outstanding shares of Common Stock after the Reverse Stock Split would be approximately 152,701 shares.

Effects of the Reverse Stock Split on Outstanding Equity Awards and Warrants to Purchase Common Stock

If the Reverse Stock Split is effected, the terms of equity awards granted under our 2020 Stock Option and Incentive Plan (the "2020 Plan"), our 2021 Stock Option and Incentive Plan (the "2021 Plan") and our 2021 Employee Stock Purchase Plan ("2021 ESPP", and together with the 2020 Plan and the 2021 Plan, the "Equity Plans"), including the per share exercise price of options and the number of shares issuable under such options, will be proportionally adjusted to maintain their economic value, subject to adjustments for any fractional shares as described herein. In addition, the total number of shares of Common Stock that may be the subject of future grants under the Equity Plans, as well as any plan limits on the size of such grants will be adjusted and proportionately decreased as a result of the Reverse Stock Split.

Effects of the Reverse Stock Split on Voting Rights

Proportionate voting rights and other rights of the holders of Common Stock would not be affected by the Reverse Stock Split (except for the effect of rounding up fractional shares). For example, a holder of 1% of the voting power of our outstanding Common Stock immediately prior to the effective time of the Reverse Stock Split would continue to hold 1% of the voting power of our outstanding Common Stock after the Reverse Stock Split (except for the effect of rounding up fractional shares).

Effects of the Reverse Stock Split on Regulatory Matters

We are subject to the periodic reporting and other requirements of the Exchange Act. The Reverse Stock Split will not affect our obligation to publicly file financial and other information with the SEC.

Effects of the Reverse Stock Split on Authorized Share Capital

The total number of shares of capital stock that we are authorized to issue will not be affected by the Reverse Stock Split and will remain at 300,000,000 shares, consisting of 290,000,000 shares of Common Stock and 10,000,000 shares of Preferred Stock.

Effects of the Reverse Stock Split on the Number of Shares of Common Stock Available for Future Issuance

By reducing the number of shares outstanding without reducing the number of shares of available but unissued Common Stock, the Reverse Stock Split will increase the number of authorized but unissued shares. The Board believes the increase is appropriate for future Company requirements. Although the Company does not have any pending acquisitions for which shares are expected to be used, the Company may use authorized shares in connection with future acquisitions.

Although the Reverse Stock Split would not have any dilutive effect on our stockholders, the Reverse Stock Split without a proportionate reduction in the number of shares authorized for issuance would reduce the proportion of shares owned by our stockholders in aggregate relative to the total number of shares authorized for issuance, giving the Board an increase in the authorized shares available for issuance, in its discretion. The Board from time to time may deem it to be in the best interests of the Company and its stockholders to enter into transactions and other ventures that may involve issuance of shares of our Common Stock. If the Board authorizes the issuance of additional shares subsequent to the Reverse Stock Split, the dilution to the ownership interests of our existing stockholders may be greater than would occur had the Reverse Stock Split not been effected.

Mechanics of the Reverse Stock Split

If the Reverse Stock Split is approved and effected, beginning on the effective date of the Reverse Stock Split, each certificate representing pre-split shares will, until surrendered and exchanged as described below, for all corporate purposes, be deemed to represent, respectively, only the number of post-split shares.

Exchange of Stock Certificates

Shortly after the Reverse Stock Split becomes effective, stockholders will be notified and offered the opportunity at their own expense to surrender their current certificates to our stock transfer agent in exchange for the issuance of new certificates reflecting the Reverse Stock Split in accordance with the procedures to be set forth in a letter of transmittal to be sent by our stock transfer agent. In connection with the Reverse Stock Split, the CUSIP number for our Common Stock will change from its current CUSIP number. This new CUSIP number will appear on any new stock certificates issued representing post-split shares. STOCKHOLDERS SHOULD NOT DESTROY ANY STOCK CERTIFICATE(S) AND SHOULD NOT SUBMIT ANY STOCK CERTIFICATE(S) UNLESS AND UNTIL REQUESTED TO DO SO FOLLOWING THE ANNOUNCEMENT OF COMPLETION OF THE REVERSE STOCK SPLIT IF EFFECTED.

Effect on Registered “Book-Entry” Holders of Common Stock

Holders of our Common Stock may hold some or all of their Common Stock electronically in “street name” under the direct registration system for securities. These stockholders will not have stock certificates evidencing their ownership. They are, however, provided with a statement reflecting the number of shares of our Common Stock registered in their accounts. If you hold registered Common Stock in book-entry form, you will not need to take any action to receive your post-split shares, if applicable.

Appraisal Rights

Under the DGCL, our stockholders are not entitled to appraisal or dissenter’s rights with respect to the Reverse Stock Split, and we will not independently provide our stockholders with any such rights.

Regulatory Approvals

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

Accounting Treatment of the Reverse Stock Split

If the Reverse Stock Split is effected, the par value per share of our Common Stock will remain unchanged at \$0.0001. Accordingly, on the effective date of the Reverse Stock Split, stated capital on our balance sheet attributable to our Common Stock will be reduced in proportion to the size of the Reverse Stock Split ratio, and the additional paid-in-capital account on our balance sheet will be increased by the amount by which stated capital is reduced. Our stockholders' equity, in the aggregate, will remain unchanged. Per share net income or loss will be increased because there will be fewer shares of Common Stock outstanding. Any Common Stock held in treasury will be reduced in proportion to the Reverse Stock Split ratio. The Company does not anticipate that any other accounting consequences, including changes to the amount of stock-based compensation expense to be recognized in any period, will result from the Reverse Stock Split.

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

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

This discussion is limited to U.S. holders that hold our Common Stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a U.S. holder's particular circumstances, including the impact of the alternative minimum tax, the rules related to "qualified small business stock" within the meaning of Section 1202 of the Code or the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to U.S. holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- U.S. holders whose functional currency is not the U.S. dollar;
- Persons holding our Common Stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers or traders in securities;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- S corporations, partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our Common Stock under the constructive sale provisions of the Code;
- persons who hold or received our Common Stock pursuant to the exercise of any employee stock option or otherwise as compensation; and tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds our Common Stock, the tax treatment of a partner in the partnership will generally depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships

holding our Common Stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

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

The Reverse Stock Split should constitute a “recapitalization” for U.S. federal income tax purposes. As a result, a U.S. holder of our Common Stock generally should not recognize gain or loss upon the Reverse Stock Split. A U.S. holder’s aggregate tax basis in the shares of our Common Stock received pursuant to the Reverse Stock Split should equal the aggregate tax basis of the shares of the Common Stock surrendered, and such U.S. holder’s holding period in the shares of Common Stock received should include the holding period in the shares of Common Stock surrendered. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the shares of Common Stock surrendered to the shares of Common Stock received in a recapitalization pursuant to the 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.

As noted above, we will not issue fractional shares in connection with the Reverse Stock Split. Instead, stockholders who otherwise would be entitled to receive fractional shares will be automatically entitled to receive an additional fraction of a share of Common Stock to round up to the next whole post-split share. The U.S. federal income tax treatment of the receipt of such a fractional share in a Reverse Stock Split is not clear. It is possible that the receipt of such an additional fraction of a share of Common Stock may be treated as a distribution taxable as a dividend or as an amount received in exchange for Common Stock. We intend to treat the issuance of such an additional fraction of a share of common stock in the Reverse Stock Split as a non-recognition event, but there can be no assurance that the Internal Revenue Service or a court would not successfully assert otherwise.

Vote Required and Board of Directors’ Recommendation

Pursuant to the DGCL and our organizational documents, approval of the Reverse Stock Split Proposal requires the affirmative vote of the majority of the votes cast by the holders of our Common Stock present in person or represented by proxy at the Annual Meeting and entitled to vote on the proposal. Since abstentions are not considered votes cast, they will have no effect on this proposal.

The Board recommends voting ‘FOR’ Proposal No. 4 to authorize the Board to amend our Amended and Restated Certificate of Incorporation to effect the Reverse Stock Split.

PROPOSAL NO. 5 — TO APPROVE THE ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE INSUFFICIENT VOTES AT THE TIME OF THE ANNUAL MEETING TO APPROVE PROPOSALS 2 AND- 4

Background of and Rationale for the Adjournment Proposal

The Board believes that, if the number of affirmative votes received from holders of outstanding shares of our Common Stock entitled to vote on Proposals 2 or 4 are insufficient to approve these Proposals, it is in the best interests of our stockholders to enable the Board to continue to seek to obtain a sufficient number of additional affirmative votes to approve Proposals 2 and 4, as applicable.

In the Adjournment Proposal, we are asking stockholders to authorize the holder of any proxy solicited by the Board to vote in favor of adjourning the Annual Meeting or any adjournment thereof. If our stockholders approve this proposal, we could adjourn the Annual Meeting, and any adjourned session of the Annual Meeting, to use the additional time to solicit additional proxies in favor of Proposals 2 and 4.

Additionally, approval of the Adjournment Proposal could mean that, in the event we receive proxies indicating that a majority of the voting power of the outstanding shares of our Common Stock entitled to vote on Proposals 2 and/or 4 have voted against Proposals 2 and 4, as applicable, we could adjourn the Annual Meeting without a vote on Proposals 2 and/or 4 and use the additional time to solicit the holders of those shares to change their vote in favor of Proposals 2 and 4, as applicable.

Vote Required

The approval of the Adjournment Proposal requires the affirmative vote of the majority of the votes cast by the holders of our Common Stock present in person or represented by proxy at the Annual Meeting and entitled to vote on the proposal.

Board Recommendation

The Board recommends a vote “FOR” the adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are insufficient votes at the time of the Annual Meeting to approve Proposals 2 and/or 4.

CORPORATE GOVERNANCE

Director Nomination Process

Our nominating and corporate governance committee is responsible for identifying individuals qualified to serve as directors, consistent with criteria approved by our Board and as set forth in the Director Guidelines, and for recommending such persons to be nominated for election as directors except where we are legally required by contract, law or otherwise to provide third parties with the right to nominate.

The process followed by our nominating and corporate governance committee to identify and evaluate director candidates includes requests to Board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates, and interviews of selected candidates by management, recruiters, members of the committee and our other directors. The qualifications, qualities and skills that our nominating and corporate governance committee believes must be met by a committee-recommended nominee for a position on our Board are as follows:

- Nominees should demonstrate high standards of personal and professional ethics and integrity.
- Nominees should have proven achievement and competence in the nominee's field and the ability to exercise sound business judgment.
- Nominees should have skills that are complementary to those of the existing Board.
- Nominees should have the ability to assist and support management and make significant contributions to the Company's success.
- Nominees should have an understanding of the fiduciary responsibilities that are required of a member of the Board and the commitment of time and energy necessary to diligently carry out those responsibilities.

Stockholders may recommend individuals to the nominating and corporate governance committee for consideration as potential director candidates. Any such proposals must be submitted to our corporate secretary at our principal executive offices, at the address below, no later than the close of business on the 90th day, nor earlier than the close of business on the 120th day, prior to the one-year anniversary of the date of the preceding year's annual meeting. Such proposals should include (i) appropriate biographical and background material sufficient to allow the nominating and corporate governance committee to properly evaluate the potential director candidate, (ii) the number of shares of our stock beneficially owned by the stockholder proposing the candidate, and (iii) any other information as required by our Bylaws. Stockholder proposals should be addressed to TransCode Therapeutics, Inc., 6 Liberty Square, #2382 Boston, MA 02109 USA, Attention: Corporate Secretary. Assuming that biographical and background material has been provided on a timely basis in accordance with our Bylaws, any recommendations received from stockholders will be evaluated in the same manner as other potential nominees proposed by the nominating and corporate governance committee. If our Board determines to nominate a stockholder-recommended candidate and recommends his or her election, then his or her name will be included on our proxy card for the next annual meeting of stockholders. See "Stockholder Proposals" for a discussion of submitting stockholder proposals.

Director Independence

Applicable Nasdaq rules require that, within one year of listing, a majority of a listed company's board of directors comprise independent directors. In addition, 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 and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act and that compensation committee members satisfy independence criteria set forth in Rule 10C-1 under the Exchange Act. Under applicable Nasdaq rules, a director will only qualify as an "independent director" if, in the opinion of the listed company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee, accept, directly or indirectly,

any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries. In addition, in affirmatively determining the independence of any director who will serve on a company's compensation committee, Rule 10C-1 under the Exchange Act requires that a company's board of directors must consider all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including the source of compensation to the director, including any consulting, advisory or other compensatory fee paid by such company to the director, and whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Our Board has determined that Philippe P. Calais, PharmD, PhD, Erik Manting, PhD, and Magda Marquet, PhD, comprising all members of our Board, except Thomas A. Fitzgerald, are independent directors, including for purposes of the rules of Nasdaq and the SEC. In making such independence determination, our Board considered the relationships that each non-employee director has with us and all other facts and circumstances that our Board deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director. In considering the independence of the directors listed above, our Board considered the association of our directors with the holders of more than 5% of our Common Stock. There are no family relationships among any of our directors or executive officers. Mr. Fitzgerald is not an independent director under these rules because he is an executive officer of the Company.

Board Diversity

Although the Board does not have a formal policy regarding diversity and does not follow any ratio or formula with respect to diversity in order to determine the appropriate composition of the Board, the nominating and corporate governance committee and the full Board are committed to creating a board of directors with diversity, including diversity of expertise, experience, background, race, ethnicity and gender, and are committed to identifying, recruiting and advancing candidates offering such diversity in future searches. The nominating and corporate governance committee's evaluation of director nominees includes consideration of their ability to contribute to the diversity of personal and professional experiences, opinions, perspectives and backgrounds on the Board. Nominees are not discriminated against based on race, color, religion, sex, ancestry, national origin, sexual orientation, disability or any other basis prohibited by law. The nominating and corporate governance committee assesses the effectiveness of this approach as part of its review of the Board's composition as well as in the course of the Board's and nominating and corporate governance committee's self-evaluation.

The following Board Diversity Matrix presents statistics about our Board diversity in accordance with Nasdaq Rule 5606, as self-disclosed by our directors. Each of the categories listed in the matrix below has the meaning used in Nasdaq Listing Rule 5605(f). As we pursue future director recruitment efforts, our nominating and corporate governance committee will continue to seek out candidates who can contribute to the diversity of views and perspectives of the Board in accordance with the Director Guidelines. This includes seeking out individuals of diverse ethnicities, a balance in terms of gender, and individuals with diverse perspectives informed by other personal and professional experiences.

Board Diversity Matrix (As of April 22, 2024)**Board Size:**

Total Number of Directors		4			
Gender Identity	Female	Male	Non-Binary	Decline to Disclose	
Number of Directors based on gender identity	1	3	—	—	
Part II: Demographic Background	Female	Male	Non-Binary	Decline to Disclose	
African American or Black	—	—	—	—	
Alaskan Native or Native American	—	—	—	—	
Asian	—	—	—	—	
Hispanic or Latinx	1	—	—	—	
Native Hawaiian or Pacific Islander	—	—	—	—	
White	—	3	—	—	
Two or More Races or Ethnicities	—	—	—	—	
LGBTQ+	—	—	—	—	
Did Not Disclose Demographic Background	—	—	—	—	

Board Committees

Our Board has established an audit committee, a compensation committee, and a nominating and corporate governance committee. Each such committee operates under a charter that satisfies the applicable standards of the SEC and Nasdaq. A current copy of the charter for each of the audit committee, compensation committee, and nominating and corporate governance committee is posted on the corporate governance section of our website, <https://ir.transcodetherapeutics.com/corporate-governance/documents-and-charters>.

The table below shows current membership for each of the standing committees of our Board.

<u>Audit Committee</u>	<u>Compensation Committee</u>	<u>Nominating and Corporate Governance Committee</u>
Philippe Calais*	Philippe Calais	Erik Manting*
Erik Manting	Erik Manting	Magda Marquet
Magda Marquet	Magda Marquet*	

* Denotes committee chair.

Audit Committee

Philippe Calais, Erik Manting and Magda Marquet serve on the audit committee, which is chaired by Philippe Calais. Our Board has determined that each member of the audit committee is “independent” for audit committee purposes as that term is defined by the rules of the SEC and Nasdaq, and that each has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our Board has designated Dr. Calais as an “audit committee financial expert,” as defined under the applicable rules of the SEC. During the fiscal year ended December 31, 2023, the audit committee met five times. The audit committee’s responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;

- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices we use;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting and enterprise-wide risk management;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending based upon the audit committee’s review and discussions with management and our independent registered public accounting firm whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related-person transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

All audit and non-audit services, other than *de minimis* non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

Compensation Committee

Magda Marquet, Erik Manting and Philippe Calais serve on the compensation committee, which is chaired by Magda Marquet. Our Board has determined that each member of the compensation committee is “independent” as defined in the applicable Nasdaq rules and is a “non-employee director” as defined in Rule 16b-3 promulgated under the Exchange Act. During the fiscal year ended December 31, 2023, the compensation committee met one time. The compensation committee’s responsibilities include:

- annually reviewing and approving or recommending to the Board the corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and based on such evaluation (i) reviewing and determining the cash compensation of our Chief Executive Officer and (ii) reviewing and approving grants and awards to our Chief Executive Officer under equity-based plans;
- reviewing and approving the compensation of our other executive officers;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;
- evaluating and assessing potential and current compensation advisors in accordance with the independence standards identified in the applicable Nasdaq rules;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and recommending to the Board the compensation of our non-employee directors;
- preparing our compensation committee report if and when required by SEC rules;
- reviewing and discussing annually with management our “Compensation Discussion and Analysis,” if and when required, to be included in our annual proxy statement;
- administering the Company’s Compensation Recovery Policy; and
- reviewing and approving the retention or termination of any consulting firm or outside advisor to assist in the evaluation of compensation matters.

Nominating and Corporate Governance Committee

Erik Manting and Magda Marquet serve on the nominating and corporate governance committee, which is chaired by Erik Manting. Our Board has determined that each of Dr. Marquet and Dr. Manting is “independent” as defined in the applicable Nasdaq rules. During the fiscal year ended December 31, 2023, the nominating and corporate governance committee held zero meetings. The nominating and corporate governance committee’s responsibilities include:

- developing and recommending to the Board criteria for Board and committee membership;
- establishing procedures for identifying and evaluating Board candidates, including nominees recommended by stockholders;
- reviewing the composition of the Board to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- identifying individuals qualified to become members of the Board;
- recommending to the Board the persons to be nominated for election as directors and to each of the Board’s committees;
- developing and recommending to the Board a code of business conduct and ethics and a set of corporate governance guidelines; and
- overseeing the evaluation of our Board and management.

The nominating and corporate governance committee considers candidates for Board membership suggested by its members and our Chief Executive Officer. Additionally, in selecting nominees for directors, the nominating and corporate governance committee will review candidates recommended by stockholders in the same manner and using the same general criteria as candidates recruited by the committee and/or recommended by our Board. Any stockholder who wishes to recommend a candidate for consideration by the committee as a nominee for director should follow the procedures described later in this Proxy Statement under the heading “Stockholder Proposals.” The nominating and corporate governance committee will also consider whether to nominate any person proposed by a stockholder in accordance with the provisions of our Bylaws relating to stockholder nominations as described later in this Proxy Statement under the heading “Stockholder Proposals.”

Identifying and Evaluating Director Nominees. Our Board is responsible for filling vacancies on our Board and for nominating candidates for election by our stockholders each year in the class of directors whose term expires at the relevant annual meeting. The Board delegates the selection and nomination process to the nominating and corporate governance committee, with the expectation that other members of the Board, and of management, will be requested to take part in the process as appropriate.

Generally, the nominating and corporate governance committee identifies candidates for director nominees in consultation with management, through the use of search firms or other advisors, through recommendations submitted by stockholders or through such other methods as the nominating and corporate governance committee deems helpful. Once candidates have been identified, the nominating and corporate governance committee confirms that the candidates meet the minimum qualifications for director nominees established by the nominating and corporate governance committee. The nominating and corporate governance committee may gather information about the candidates through interviews, detailed questionnaires, comprehensive background checks or any other means that the nominating and corporate governance committee deems appropriate. The nominating and corporate governance committee then meets as a group to discuss and evaluate the qualities and skills of each candidate, both on an individual basis and taking into account the overall composition and needs of our Board. Based on the results of the evaluation process, the nominating and corporate governance committee recommends candidates for the Board’s approval to fill a vacancy or as director nominees for election to the Board by our stockholders each year in the class of directors whose term expires at the relevant annual meeting.

Board and Committee Meetings Attendance

The full Board met 26 times during 2023. During 2023, each member of the Board attended in person or participated in approximately 92% or more of the aggregate of (i) the total number of meetings of the

Board (held during the period for which such person has been a director), and (ii) the total number of meetings held by all committees of the Board on which such person served (during the periods that such person served).

Director Attendance at Annual Meeting of Stockholders

Currently, we do not maintain a formal policy regarding director attendance at the Annual Meeting, however directors are encouraged to attend the annual meeting of stockholders to the extent practicable.

Policy on Trading, Pledging and Hedging of Company Stock

Certain transactions in our securities (such as purchases and sales of publicly traded put and call options, and short sales) create a heightened compliance risk or could create the appearance of misalignment between management and stockholders. In addition, securities held in a margin account or pledged as collateral may be sold without consent if the owner fails to meet a margin call or defaults on the underlying loan, thus creating the risk that a sale may occur at a time when an officer or director is aware of material, non-public information or otherwise is not permitted to trade in our securities. Our insider trading policy expressly prohibits derivative transactions in our stock by our executive officers, directors and employees. Our insider trading policy expressly prohibits purchases of any derivative securities that provide the economic equivalent of ownership.

Compensation Recovery Policy

Our Board adopted a Compensation Recovery Policy effective as of October 2, 2023, in compliance with the Nasdaq listing rules, which requires recovery from executive officers of incentive-based compensation that is earned, granted or vested based on the achievement of a financial reporting measure in the event of that we are required to restate our previously issued financial statements due to our material noncompliance with any financial reporting requirement under securities laws. The recoverable compensation includes any compensation received after the effective date of the Compensation Recovery Policy and in the three-year fiscal period preceding the date we were required to prepare the accounting restatement that is in excess of the amount that would have been earned, paid or vested had it been calculated based on the restated financial statements. Recovery is required regardless of fault or a covered officer's role in the financial reporting process. The Compensation Recovery Policy has been filed as Exhibit 97.1 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023. At no time during or after the year ended December 31, 2023, were we required to prepare an accounting restatement that required recovery of erroneously awarded compensation pursuant to the Compensation Recovery Policy, nor was there, on December 31, 2023, an outstanding balance of erroneously awarded compensation to be recovered from the application of the policy to a prior restatement.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A current copy of the code is posted on the corporate governance section of our website located at <https://ir.transcodetherapeutics.com/corporate-governance/documents-and-charters>. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

Board Leadership Structure and Board's Role in Risk Oversight

Currently, the role of chairperson of the Board is separated from the role of Chief Executive Officer, and we plan to keep these roles separate. We believe that separating these positions allows our Chief Executive Officer to focus on our day-to-day business, while allowing the chairperson of the Board to lead the Board in its fundamental role of providing advice to and independent oversight of management. Our Board recognizes the time, effort, and energy that the Chief Executive Officer is required to devote to that position in the current business environment, as well as the commitment required to serve as our chairperson, particularly as the Board's oversight responsibilities continue to grow. While our Bylaws and our corporate

governance guidelines do not require that our chairperson and Chief Executive Officer positions be separate, our Board believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.

Risk is inherent to every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including risks relating to our financial condition, development and commercialization activities, operations, strategic direction and intellectual property. Management is responsible for the day-to-day management of risks we face, while our Board, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our Board has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

The role of the Board in overseeing the management of our risks is conducted primarily through committees of the Board, as disclosed in the descriptions of each of the committees above and in the charters of each of the committees. The full Board (or the appropriate Board committee in the case of risks that are under the purview of a particular committee) discusses with management our major risk exposures, their potential impact on us, and the steps we take to manage them. When a Board committee is responsible for evaluating and overseeing the management of a particular risk or risks, the chairperson of the relevant committee reports on the discussion to the full Board during the committee reports portion of the next Board meeting. This enables the Board and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

Communication with the Directors of TransCode Therapeutics

Any interested party with concerns about our Company may report such concerns to the Board or the chairperson of our Board and nominating and corporate governance committee by submitting a written communication to the attention of such director at the following address:

c/o TransCode Therapeutics, Inc.
6 Liberty Square, #2382
Boston, MA 02109
United States of America

You may submit your concern anonymously or confidentially by postal mail. You may also indicate whether you are a stockholder, customer, supplier or other interested party.

A copy of any such written communication may also be forwarded to TransCode's legal counsel and a copy of such communication may be retained for a reasonable period of time. The director may discuss the matter with TransCode's legal counsel, with independent advisors, with non-management directors, or with TransCode's management, or may take other action or no action as the director determines in good faith, using reasonable judgment and applying his or her own discretion.

Communications may be forwarded to other directors if they relate to important substantive matters and include suggestions or comments that may be important for other directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and other matters for which we receive repetitive or duplicative communications.

The audit committee oversees the procedures for the receipt, retention, and treatment of complaints received by TransCode regarding accounting, internal accounting controls, or audit matters, and the confidential, anonymous submission by employees of concerns regarding questionable accounting, internal accounting controls or auditing matters. TransCode has also established a toll-free telephone number for the reporting of such activities, which is (877) 900-1403.

Director Compensation

The table below shows all compensation earned by or paid to our non-employee directors during the year ended December 31, 2023. Robert Michael Dudley, our former Chief Executive Officer, and Thomas A. Fitzgerald, our interim Chief Executive Officer and Chief Financial Officer, do not receive any compensation

for their services as directors so, consequently, are not included in this table. The compensation received by Mr. Dudley and Mr. Fitzgerald during 2023 is set forth in the section of this Proxy Statement captioned “Executive Compensation — Summary Compensation Table.”

The following table presents the total compensation for each person who served as a non-employee member of our Board and received compensation for such service during 2023. Other than as set forth in the table below, we did not pay any compensation, make any equity awards or non-equity awards to, or pay any other compensation to any of the non-employee members of our Board in 2023.

Name	Fees Earned or Paid in Cash (\$)	Option Awards (\$) ⁽¹⁾⁽²⁾	All Other Compensation (\$)	Total (\$)
Philippe P. Calais, PhD	100,000	12,611	—	112,611
Erik Manting, PhD	60,500	12,611	—	73,111
Magda Marquet, PhD	62,500	12,611	—	75,111

- (1) The amounts reported in the “Option Awards” column above represent the aggregate grant date fair value of the stock options granted during 2023 as computed in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 718, not including any estimates of forfeitures related to service-based vesting conditions.
- (2) As of December 31, 2023, non-employee directors held the following number of shares underlying outstanding stock options: Dr. Calais held 5,019; Dr. Manting held 5,019; and Dr. Marquet held 5,019.

Non-Employee Director Compensation Policy

We have adopted a non-employee director compensation policy. The policy is designed to enable us to attract and retain, on a long-term basis, highly qualified non-employee directors.

Under our non-employee director compensation policy, each director who is not an employee is paid cash compensation as set forth below. Annual cash retainers are generally paid in quarterly installments in advance and are pro-rated for any partial calendar quarter of service.

	Annual Retainer
Board of Directors:	
Members	\$40,000
Additional retainer for non-executive chair	\$40,000
Audit Committee:	
Members (other than chair)	\$ 7,500
Retainer for chair	\$15,000
Compensation Committee:	
Members (other than chair)	\$ 5,000
Retainer for chair	\$10,000
Nominating and Corporate Governance Committee:	
Members (other than chair)	\$ 5,000
Retainer for chair	\$ 8,000

In addition, the non-employee director compensation policy provides that, upon initial election to our Board, each non-employee director will be granted an equity award in the form of a non-qualified stock option to purchase 24 shares of Common Stock (the “Initial Grant”). The Initial Grant vests in equal installments on the first, second and third anniversaries of the grant date, subject to continued service as a director through the applicable vesting date. Furthermore, on the date of each annual meeting of stockholders, each non-employee director who continues as a non-employee director following such meeting is granted

an annual equity award in the form of a non-qualified stock option to purchase 12 shares of Common Stock (the “Annual Grant”). Annual Grants vest in full on the earlier of (i) the first anniversary of the grant date or (ii) our next annual meeting of stockholders, subject to continued service as a director through the applicable vesting date.

We reimburse all reasonable out-of-pocket expenses incurred by non-employee directors in attending meetings of the Board and committees and for other Company business purposes.

Compensation Committee Interlocks and Insider Participation

Dr. Calais, Dr. Manting and Dr. Marquet served as members of our compensation committee during the year ended December 31, 2023. None of the members of our compensation committee is, or has been at any time, one of our officers or employees. None of our executive officers currently serves, or has served in the past fiscal year, as a member of the board of directors or compensation committee of any entity that has one or more of its executive officers serving as a member of our Board or our compensation committee.

Executive Compensation

Our named executive officers for the fiscal year ended December 31, 2023, were:

- Robert Michael Dudley, our former Chief Executive Officer; and
- Thomas A. Fitzgerald, our interim Chief Executive Officer, Vice President and Chief Financial Officer.

Summary Compensation Table

The following table provides information regarding the total compensation for services rendered in all capacities that was earned by our named executive officers during the fiscal years indicated.

Name and principal position	Year	Salary (\$) ⁽¹⁾	Bonus (\$)	Stock Awards (\$)	Option Awards (\$) ⁽²⁾	All Other Compensation (\$)	Total (\$)
Robert Michael Dudley	2023	474,392	—	—	168,374	—	642,766
<i>Former Chief Executive Officer</i>	2022	494,000	—	—	311,027	—	805,027
Thomas A. Fitzgerald	2023	358,138	—	—	68,724	—	426,862
<i>Interim Chief Executive Officer, Vice President and Chief Financial Officer</i>	2022	371,000	—	—	189,701	—	560,701

(1) Base salary amounts in 2023 reflect voluntary reductions of base salary during three payroll periods in 2023.

(2) The amounts reported represent the aggregate grant-date fair value of stock options, calculated in accordance with FASB ASC Topic 718. Unlike the calculations contained in our financial statements, this calculation does not give effect to any estimate of forfeitures related to service-based vesting, but assumes that the executive will perform the requisite service for the award to vest in full. See Note 11 of “Notes to Financial Statements” in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on April 1, 2024, for a discussion of assumptions made in determining the aggregate grant date fair value of stock option awards. Note that the amounts reported in this column reflect the accounting cost for these stock options, and do not correspond to the actual economic value that may be received by the named executive officers from the stock options.

Narrative to Summary Compensation Table

Our compensation committee reviews compensation annually for our executive officers. In setting executive base salaries and annual incentives, and in granting equity incentive awards, the compensation committee considers compensation for comparable positions in the market, the historical compensation levels of our executives, individual performance as compared to our expectations and objectives, our desire to motivate our employees to achieve short-term and long-term results that are in the best interests of our

stockholders, and to encourage a long-term commitment to our Company. We target generally competitive levels, based on independent third-party benchmark analytics to inform the levels and mix of compensation among base salary, annual incentives, and/or long-term incentives.

Our compensation committee is responsible for reviewing and approving the compensation for all of our executive officers. Our compensation committee typically reviews and discusses proposed compensation with the Chief Executive Officer for executive officers and employees other than the Chief Executive Officer. Based on those discussions and its discretion, taking into account the factors noted above, the compensation committee approves the compensation for executive officers.

Our compensation committee is authorized to retain the services of one or more executive compensation advisors, as it sees fit, in connection with the establishment of our executive compensation programs and related policies. Commencing in 2021, the compensation committee retained the services of Pay Governance, LLC (“Pay Governance”), as its independent compensation consultant. Pay Governance has not provided services to us other than the services to our compensation committee described herein. Our compensation committee performs an annual assessment of its compensation consultants’ independence to determine whether the consultants are independent. Based on its evaluation, the compensation committee determined that Pay Governance is independent and that its work has not raised any conflicts of interest.

Base Salary

We use base salaries to recognize the experience, skills, knowledge and responsibilities required of all our employees, including our named executive officers. Base salaries are reviewed annually, typically in connection with our annual performance review process, approved by our Board, and adjusted from time to time to realign salaries with market levels after taking into account individual responsibilities, performance and experience. Effective upon completion of our IPO, the initial annualized base salaries for each of Mr. Dudley and Mr. Fitzgerald were \$480,000 and \$360,000, respectively. These amounts have generally increased approximately three percent per year since 2021 and the base salaries for Mr. Dudley and Mr. Fitzgerald for 2023 were \$509,000 and \$382,000, respectively. Mr. Dudley and Mr. Fitzgerald each voluntarily agreed to reduce his base salary for three pay periods in 2023.

Bonuses

Our named executive officers are eligible for incentive compensation opportunities based upon achievement of both corporate and individual goals determined by the Board. Each named executive officer may earn more or less than the target amount based on our Company’s and his individual performance. For 2023, Mr. Dudley’s target bonus was 50% of his annualized base salary and Mr. Fitzgerald’s target bonus was 35% of his annualized base salary. No bonuses were awarded for 2023.

Equity Compensation

Although we do not have a formal policy with respect to the grant of equity incentive awards to our named executive officers, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, we believe that equity grants with a time-based vesting feature promote executive retention because this feature incentivizes our executive officers to remain in our employment during the vesting period. Accordingly, our compensation committee periodically reviews the equity incentive compensation of our named executive officers and may grant equity incentive awards to them from time to time. During 2023, our named executive officers were granted stock options subject to time-based vesting, which are described in the Outstanding Equity Awards at Fiscal Year-End below.

Employee Benefits.

All of our full-time employees, including our named executive officers, are eligible to participate in certain medical, disability and life insurance, and other benefit programs we offer employees generally. We pay approximately 90% of the premiums for medical, vision and dental insurance for all of our employees, including our named executive officers. We pay the full amount of premiums for term life insurance and short and long-term disability insurance for all of our employees, including our named executive officers. We

also provide all employees, including named executive officers, paid time off benefits including vacation, mandated sick time and holidays. We do not sponsor any qualified or non-qualified defined benefit plans for any of our employees or executives.

In the future, we may establish a defined contribution retirement plan, such as a 401(k) plan.

Rule 10b5-1 Sales Plans

Our directors and named executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they contract with a stock brokerage firm to buy or sell shares of our Common Stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction to the broker from the director or officer. The director or officer may amend or terminate the plan in some circumstances. Our directors and named executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

Executive Employment Agreements

We have entered into written employment agreements with our named executive officers, each of whom has also executed our standard form of confidential information and invention assignment agreement. The term of each agreement is (or, in the case of Mr. Dudley, was) for three years with automatic renewal for additional 12-month periods on each anniversary of the agreement unless terminated by either party as provided in the agreement. Pursuant to the employment agreements, in the event that the named executive officer's employment is terminated (or, in the case of Mr. Dudley, was terminated) by the Company without "cause" or the named executive officer resigns (or, in the case of Mr. Dudley, resigned) for "good reason," as each such term is defined in the applicable employment agreement, subject to the named executive officer's execution and non-revocation of a separation agreement, including a general release of claims, the named executive officer shall be (or, in the case of Mr. Dudley, would have been) entitled to a lump sum payment equal to the sum of (i) 18 months of the executive's base salary and (ii) an amount equal to the greater of the incentive compensation paid to the executive in the year prior to the year of termination or 1.5 times the executive's target bonus. If the named executive officer breaches any of the provisions of the confidential information and invention assignment agreement, all payments of the severance amount shall immediately cease. In addition, if the named executive officer's employment is (or, in the case of Mr. Dudley, was) terminated by the Company without cause or the named executive officer resigns (or, in the case of Mr. Dudley, resigned) for good reason, the Company shall pay (or, in the case of Mr. Dudley, would have paid) the premiums for the executive's health, medical and dental insurance, including those incurred under COBRA, for a period of 12 months. In lieu of the severance payments and benefits set forth above, if the named executive officer's employment is (or, in the case of Mr. Dudley, was) terminated by the Company without cause or the named executive officer resigns (or in the case of Mr. Dudley, resigned) for good reason and such termination or resignation occurs (or, in the case of Mr. Dudley, occurred) within three months prior to or 18 months following a "change in control," as defined in the applicable employment agreement, absent the Company obtaining an agreement from any successor to assume the employment agreement (which assumption shall be subject to the executive's consent) and subject to the executive's execution of a separation agreement, including a general release of claims, the named executive officer shall be (or, in the case of Mr. Dudley, would have been) entitled to:

- a lump sum payment equal to the sum of 24 months of the executive's base salary plus the amount of bonus for which the executive would have been eligible during a 24-month period following the date of termination;
- vesting in full of any unvested equity awards or other unvested equity interests held by the executive that are outstanding on the date of termination; and
- reimbursement by the Company for any expenses incurred by the executive for the executive's health, medical and dental insurance, including those incurred under COBRA, for 24 months following termination.

Dudley Transition Agreement

On January 10, 2024, Mr. Dudley entered into a separation agreement with the Company pursuant to which he resigned from his position as the Company's President and Chief Executive Officer, and as a director of the Company, in each case effective January 13, 2024. Under the separation agreement, the Company paid Mr. Dudley severance in the amount of \$34,607.70, accelerated the vesting of all of Mr. Dudley's outstanding option awards that would have otherwise vested during the 12-month period following the separation date and extended the exercise period of Mr. Dudley's option awards until the earlier of 12 months following the separation date or the earlier expiration date of the option. Mr. Dudley also entered into a customary release of claims in favor of the Company.

Outstanding Equity Awards at 2023 Fiscal Year-End

The following table sets forth information regarding outstanding equity awards held by our named executive officers as of December 31, 2023:

Name	Vesting Commencement Date	Option Awards				Stock Awards	
		Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	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 (\$)
Robert Michael Dudley	5/19/2023 ⁽¹⁾	919	—	226.72	5/18/2033	—	—
	12/1/2022 ⁽²⁾	61	108	408.00	12/11/2032	—	—
	2/1/2022 ⁽²⁾	72	97	1,960.00	1/31/2032	—	—
	1/1/2020 ⁽³⁾	1,024	—	72.80	6/18/2025	—	—
Thomas A. Fitzgerald	5/19/2023 ⁽¹⁾	375	—	226.72	5/18/2033	—	—
	12/1/2022 ⁽²⁾	45	80	408.00	12/11/2032	—	—
	2/1/2022 ⁽²⁾	35	30	1,680.00	2/28/2032	—	—
	2/1/2022 ⁽²⁾	26	15	1,960.00	1/31/2032	—	—
	1/1/2020 ⁽³⁾	303	—	65.60	6/19/2030	—	—

- (1) The shares subject to this stock option vested in full on December 31, 2023.
- (2) Of the shares subject to this stock option, 33% vested and became exercisable on the first anniversary of the vesting commencement date and the remainder vest in 24 equal monthly installments on the last day of each month beginning with the month of the first anniversary of the vesting commencement date, subject to the named executive officer's continued service with us through the applicable vesting date.
- (3) Of the shares subject to this stock option, 33% vested as of the vesting commencement date and the remainder vested in 24 equal monthly installments on the last day of each month following the first anniversary of the vesting commencement date, subject to the named executive officer's continued service with us through the applicable vesting date.

Compensation Risk Assessment

We believe that, although a portion of the compensation provided to our named executive officers and other employees is performance-based, our executive compensation program does not encourage excessive or unnecessary risk taking. This is primarily due to the fact that our compensation programs are designed to encourage our named executive officers and other employees to remain focused on both short-term and long-term strategic goals. As a result, we do not believe that our compensation programs are reasonably likely to have a material adverse effect on us.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Under Section 16(a) of the Exchange Act, directors, executive officers, our principal accounting officer and beneficial owners of 10% or more of our common stock, or reporting persons, are required to report to the SEC on a timely basis the initiation of their status as a reporting person and any changes with respect to their beneficial ownership of our common stock. Based solely on our review of copies of such forms that we have received, or written representations from reporting persons, we believe that during the fiscal year ended December 31, 2023, all reporting persons complied with all applicable filing requirements.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Certain Relationships and Transactions

Other than the compensation agreements and other arrangements described in this Proxy Statement under “Executive Compensation” and “Director Compensation,” and the transactions described below, since January 1, 2022, there has not been and there is not currently proposed, any transaction or series of similar transactions to which we were, or will be, a party in which the amount involved exceeded, or will exceed, \$120,000 (or, if less, 1% of the average of our total assets amounts at December 31, 2023 and 2022) and in which any director, executive officer, holder of 5% or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of the foregoing persons, had, or will have, a direct or indirect material interest.

Employment Arrangements

We have entered into an employment agreement with our executive officer. For more information regarding the employment agreement with our executive officer, see “Executive Compensation — Executive Employment Agreements.”

Indemnification Agreements

We have entered into agreements to indemnify our directors and executive officer. These agreements will, among other things, require us to indemnify these individuals for certain expenses (including attorneys’ fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in our right, on account of any services undertaken by such person on our behalf or in that person’s status as our executive officer or a member of our Board to the maximum extent allowed under Delaware law.

Policies and Procedures for Related Party Transactions

Our Board reviews and approves transactions with directors, officers and holders of 5% or more of our voting securities and their affiliates, each deemed a related party.

We have adopted a written related party transactions policy that provides that such transactions must be approved by our audit committee. Pursuant to this policy, the audit committee has the primary responsibility for reviewing and approving or disapproving “related party transactions,” which are transactions between us and related persons in which the aggregate amount involved exceeds or may be expected to exceed \$120,000 and in which a related person has or will have a direct or indirect material interest. For purposes of this policy, a related person is defined as a director, executive officer, nominee for director, or greater than 5% beneficial owner of our common stock, in each case since the beginning of the most recently completed year, and their immediate family members.

PRINCIPAL STOCKHOLDERS

The following table sets forth information, to the extent known by us or ascertainable from public filings, with respect to the beneficial ownership of our Common Stock as of March 31, 2024, by:

- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

There was no person, or group of affiliated persons, known by us to be the beneficial owner of greater than 5.0% of our Common Stock as of March 31, 2024. The column entitled “Shares Beneficially Owned” is based on a total of 5,808,053 shares of our Common Stock outstanding as of March 31, 2024.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our Common Stock. Shares of our Common Stock subject to options that are currently exercisable or exercisable within 60 days of March 31, 2024, are considered outstanding and beneficially owned by the person holding the options for the purpose of calculating the percentage ownership of that person, but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our Common Stock beneficially owned by them, subject to community property laws, where applicable. Except as otherwise indicated in the table below, addresses of named beneficial owners are in care of TransCode Therapeutics, Inc., 6 Liberty Square, #2382, Boston, MA 02109 USA.

Name of Beneficial Owner	Shares Beneficially Owned	Percentage of Shares Beneficially Owned
<i>Named Executive Officers and Directors</i>		
Robert Michael Dudley, Former Chief Executive Officer, President, and Director ⁽¹⁾	6,684	0.115%
Thomas A. Fitzgerald, Interim Chief Executive Officer, Chief Financial Officer ⁽²⁾	2,231	0.038%
Philippe Calais, PharmD, PhD, Director ⁽³⁾	278	0.005%
Erik Manting, PhD, Director ⁽⁴⁾	118	0.002%
Magda Marquet, PhD, Director ⁽⁵⁾	117	0.002%
All current executive officers and directors as a group (5 persons)	9,428	0.162%

(1) Consists of (i) 4,507 shares of Common Stock and (ii) 2,177 shares of Common Stock underlying options exercisable within 60 days of March 31, 2024.

(2) Consists of (i) 1,408 shares of Common Stock and (ii) 823 shares of Common Stock underlying options exercisable within 60 days of March 31, 2024.

(3) Consists of (i) 160 shares of Common Stock and (ii) 118 shares of Common Stock underlying options exercisable within 60 days of March 31, 2024.

(4) Consists of 118 shares of Common Stock underlying options exercisable within 60 days of March 31, 2024.

(5) Consists of 117 shares of Common Stock underlying options exercisable within 60 days of March 31, 2024.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

Equity Compensation Plan Information

The following table provides information as of December 31, 2023, regarding shares of Common stock that may be issued under the Company's equity compensation plans consisting of our 2020 Plan, our 2021 Plan and our 2021 ESPP.

Plan category	Equity Compensation Plan Information		
	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted Average exercise price of outstanding options, warrants and rights(\$)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities referenced in column (a))
	(a) ⁽¹⁾	(b)	(c) ⁽²⁾
Equity compensation plans approved by security holders:	6,067	\$ 401.17	5,181
Equity compensation plans not approved by security holders:	N/A	N/A	N/A
Total	6,067	\$ 401.17	5,181

(1) As of December 31, 2023, there were options to purchase 2,051 shares outstanding under our 2020 Plan and 4,015 shares under our 2021 Plan with a combined weighted average exercise price of \$401.17 per share.

(2) As of December 31, 2023, there were 5,181 shares available for grant under our 2021 Plan and 525 shares available for sale under our 2021 ESPP. As of the closing of our initial public offering, our Board determined not to make additional equity awards under the 2020 Plan.

REPORT OF THE AUDIT COMMITTEE

The audit committee is appointed by the Board to assist the Board in fulfilling its oversight responsibilities with respect to (1) the integrity of TransCode’s financial statements and financial reporting process and systems of internal controls regarding finance, accounting, and compliance with legal and regulatory requirements, (2) the qualifications, independence, and performance of TransCode’s independent registered public accounting firm, (3) the performance of TransCode’s internal audit function, if any, and (4) other matters as set forth in the charter of the audit committee approved by the Board.

Management is responsible for the preparation of TransCode’s financial statements and the financial reporting process, including its system of internal control over financial reporting and its disclosure controls and procedures. The Company’s independent registered public accounting firm is responsible for performing an audit of TransCode’s financial statements in accordance with the standards of the Public Company Accounting Oversight Board (the “PCAOB”) and issuing a report thereon. The audit committee’s responsibility is to monitor and oversee these processes.

In connection with these responsibilities, the audit committee reviewed and discussed with management and the independent registered public accounting firm the audited financial statements of TransCode for the fiscal year ended December 31, 2023. The audit committee also discussed with the independent registered public accounting firm the matters required to be discussed by the PCAOB’s Auditing Standard No. 1301, *Communication with Audit Committees*. In addition, the audit committee received written communications from the independent registered public accounting firm confirming their independence as required by the applicable requirements of the PCAOB and has discussed with the independent registered public accounting firm their independence.

Based on the reviews and discussions referred to above, the audit committee recommended to the Board that the audited financial statements of TransCode be included in TransCode’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on April 1, 2024. The information contained in this report of the audit committee shall not be deemed to be (1) “soliciting material,” (2) “filed” with the SEC, (3) subject to Regulations 14A or 14C of the Exchange Act, or (4) subject to the liabilities of Section 18 of the Exchange Act. This report shall not be deemed incorporated by reference into any of our other filings under the Exchange Act or the Securities Act of 1933 except to the extent that we specifically incorporate it by reference into such filing.

THE AUDIT COMMITTEE OF THE BOARD OF
DIRECTORS OF TRANSCODE THERAPEUTICS, INC.
Philippe Calais, Chairperson
Erik Manting
Magda Marquet

April 22, 2024

HOUSEHOLDING

Some banks, brokers and other nominee record holders may be participating in the practice of “householding” proxy statements and annual reports. This means that only one copy of our documents, including our Proxy Statement, may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you upon written or oral request to TransCode Therapeutics, Inc., 6 Liberty Square, #2382, Boston, MA 02109 USA, Attention: Corporate Secretary, telephone: 857-837-3099. If you want to receive separate copies of the proxy statement or Annual Report on Form 10-K in the future, or if you are receiving multiple copies and would like to receive only one copy per household, you should contact your bank, broker or other nominee record holder, or you may contact us at the above address and phone number.

STOCKHOLDER PROPOSALS

A stockholder who would like to have a proposal considered for inclusion in our 2025 proxy statement must submit the proposal in accordance with the procedures outlined in Rule 14a-8 of the Exchange Act so that we receive it no later than January 3, 2025. However, if the date of the 2025 Annual Meeting of Stockholders is changed by more than 30 days from the date of the previous year’s meeting, then the deadline is a reasonable time before we begin to print and send our proxy statement for the 2025 Annual Meeting of Stockholders. SEC rules set standards for eligibility and specify the types of stockholder proposals that may be excluded from a proxy statement. Stockholder proposals should be addressed to TransCode Therapeutics, Inc., 6 Liberty Square, #2382, Boston, MA 02109 USA, Attention: Corporate Secretary.

If a stockholder wishes to propose a nomination of persons for election to our Board or present a proposal at an annual meeting but does not wish to have the proposal considered for inclusion in our proxy statement and proxy card, our Bylaws establish an advance notice procedure for such nominations and proposals. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the Board or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting, and who has delivered timely notice in proper form to our corporate secretary of the stockholder’s intention to bring such business before the meeting.

The required notice must be in writing and received by our corporate secretary at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year’s annual meeting. However, in the event that the date of the annual meeting is advanced by more than 30 days, or delayed by more than 60 days, from the first anniversary of the preceding year’s annual meeting, a stockholder’s notice must be so received no earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs. For stockholder proposals to be brought before the 2025 Annual Meeting of Stockholders, the required notice must be received by our corporate secretary at our principal executive offices no earlier than February 13, 2025, and no later than March 15, 2025. Stockholder proposals and the required notice should be addressed to TransCode Therapeutics, Inc., 6 Liberty Square, #2382, Boston, MA 02109 USA, Attention: Corporate Secretary.

In addition, to comply with the universal proxy rules, stockholders intending to solicit proxies in support of director nominees other than the Company’s nominees must provide notice that sets forth the information required by Rule 14a-19 under the Exchange Act no later than April 14, 2025.

OTHER MATTERS

Our Board does not know of any other matters to be brought before the Annual Meeting. If any other matters not mentioned in this Proxy Statement are properly brought before the Annual Meeting, the individual(s) named in the enclosed proxy intend to use his (their) discretionary voting authority under the proxy to vote the proxy in accordance with his (their) best judgment on those matters.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders of TransCode Therapeutics, Inc. to be Held on June 13, 2024:

This Proxy Statement and the proxy card are first being mailed to our stockholders on or about May 1, 2024. In accordance with the rules of the SEC, we are advising our stockholders of the availability on the Internet of our proxy materials related to our upcoming Annual Meeting. Because we have elected to utilize the “full set delivery” option, we are delivering to all stockholders paper copies of all the proxy materials, as well as providing access to those proxy materials on a publicly accessible website. This Proxy Statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, are available to our stockholders at <https://ir.transcodetherapeutics.com/annual-meeting>.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, as filed with the SEC, except for exhibits, will be furnished without charge to any of our stockholders upon written request to TransCode Therapeutics, Inc., 6 Liberty Square, #2382, Boston, MA 02109 USA, Attention: Corporate Secretary. This Proxy Statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, are also available on the SEC’s website at www.sec.gov.

TRANSCODE THERAPEUTICS, INC.

AMENDMENT NO. 1 TO
2021 STOCK OPTION AND INCENTIVE PLAN

WHEREAS, TransCode Therapeutics, Inc. (the “**Company**”) maintains the TransCode Therapeutics, Inc. 2021 Stock Option and Incentive Plan (the “**Plan**”) which was previously adopted by the Board of Directors of the Company (the “**Board**”);

WHEREAS, the Board believes that the number of shares of Stock (as defined in the Plan) remaining available for issuance under the Plan has become insufficient for the Company’s anticipated future needs under the Plan;

WHEREAS, the Board has determined that it is advisable and in the best interest of the Company and its stockholders to amend the Plan to increase the aggregate number of shares of Stock reserved for issuance under the Plan by 3,000,000 shares; and

WHEREAS, Section 16 of the Plan provides that the Board may amend the Plan at any time, subject to certain conditions set forth therein.

NOW, THEREFORE, the Plan is amended as follows:

1. Amendment of the Plan.

Section 3(a) of the Plan is hereby amended and restated in its entirety to read as follows:

“Stock Issuable. As of the date of the Company’s 2024 Annual Meeting of Stockholders, the maximum number of shares of Stock reserved and available for issuance under the Plan shall be 3,005,181 shares (the “Initial Limit”), subject to adjustment as provided in this Section 3, plus on January 1, 2025 and each January 1 thereafter, the number of shares of Stock reserved and available for issuance under the Plan shall be cumulatively increased by the lesser of 5 percent (5%) of the number of shares of Stock issued and outstanding on the immediately preceding December 31 or such number of shares of Stock as determined by the Administrator (the “Annual Increase”). Subject to such overall limitation, the maximum aggregate number of shares of Stock that may be issued in the form of Incentive Stock Options shall not exceed the Initial Limit cumulatively increased on January 1, 2025 and on each January 1 thereafter by the lesser of the Annual Increase for such year or 300,000 shares of Stock, subject in all cases to adjustment as provided in this Section 3. For purposes of this limitation, the shares of Stock underlying any awards that are forfeited, canceled, held back upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated under this Plan or the Company’s 2020 Stock Option and Incentive Plan (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan and, to the extent permitted under Section 422 of the Code and the regulations promulgated thereunder, the shares of Stock that may be issued as Incentive Stock Options. In the event the Company repurchases shares of Stock on the open market, such shares shall not be added to the shares of Stock available for issuance under the Plan. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company.”

2. Miscellaneous.

- a. Effect. Except as amended hereby, the Plan shall remain in full force and effect.
- b. Defined Terms. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.
- c. Governing Law. This Amendment shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as

to all other matters shall be governed by and construed in accordance with the internal laws of the State of Delaware, without regard to its principles of conflicts of laws that would result in the application of any law other than the law of the State of Delaware.

Date of approval by the Board of Directors: April 25, 2024

Date of approval by the Stockholders:

Form of Reverse Stock Split Charter Amendment

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

TransCode Therapeutics, Inc. (the “Corporation”), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the “DGCL”), does hereby certify:

1. Pursuant to Section 242 of the DGCL, this Certificate of Amendment to the Amended and Restated Certificate of Incorporation (this “Certificate of Amendment”) amends the provisions of the Amended and Restated Certificate of Incorporation of the Corporation, as amended (the “Charter”).
2. This Certificate of Amendment has been approved and duly adopted by the Corporation’s Board of Directors and stockholders in accordance with the provisions of Section 242 of the DGCL.
3. Upon this Certificate of Amendment becoming effective, the Charter is hereby amended as follows:

ARTICLE IV of the Charter is hereby amended by adding the following new paragraph at the end of such article:

“C. REVERSE STOCK SPLIT

Effective at _____, Eastern Time, on _____, 2024 (the “June 2024 Split Effective Time”), every _____ () shares of common stock issued and outstanding or held by the Corporation as treasury shares as of the June 2024 Split Effective Time shall automatically, and without action on the part of the stockholders, be combined, reclassified and changed into one (1) validly issued, fully paid and non-assessable share of common stock, without effecting a change to the par value per share of common stock, subject to the treatment of fractional interests as described below (the “June 2024 Reverse Split”). Notwithstanding the immediately preceding sentence, no fractional shares will be issued in connection with the combination effected by the preceding sentence. The Board of Directors shall make provision for the issuance of that number of fractions of common stock such that any fractional share of a holder otherwise resulting from the June 2024 Reverse Split shall be rounded up to the next whole number of shares of common stock. As of the June 2024 Split Effective Time and thereafter, a certificate(s) representing shares of common stock prior to the June 2024 Reverse Split is deemed to represent the number of post-June 2024 Reverse Split shares into which the pre-June 2024 Reverse Split shares were reclassified and combined. The June 2024 Reverse Split shall also apply to any outstanding securities or rights convertible into, or exchangeable or exercisable for, common stock of the Corporation and all references to such common stock in agreements, arrangements, documents and plans relating thereto or any option or right to purchase or acquire shares of common stock shall be deemed to be references to the common stock or options or rights to purchase or acquire shares of common stock, as the case may be, after giving effect to the June 2024 Reverse Split.”

4. This Certificate of Amendment shall become effective at _____, Eastern Time, on _____, 2024.

* _ * _ * _ *

IN WITNESS WHEREOF, the undersigned authorized officer of the Corporation has executed this Certificate of Amendment to the Amended and Restated Certificate of Incorporation as of _____, 2024.

TRANSCODE THERAPEUTICS, INC.

By: _____
Name: Thomas A. Fitzgerald
Title: Interim Chief Executive Officer and
Chief Financial Officer

TRANSCODE THERAPEUTICS, INC.
6 LIBERTY SQUARE, #2382
BOSTON, MASSACHUSETTS 02109



SCAN TO
VIEW MATERIALS & VOTE

VOTE BY INTERNET - 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.

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

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:

V50963-Z87738

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

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

TRANSCODE THERAPEUTICS, INC.							
The Board of Directors recommends you vote FOR the following proposal:							
1. Election of Directors							
Nominees are:	For	Withhold					
1a. Philippe P. Calais, PhD	<input type="checkbox"/>	<input type="checkbox"/>					
1b. Thomas A. Fitzgerald	<input type="checkbox"/>	<input type="checkbox"/>					
1c. Erik Manting, PhD	<input type="checkbox"/>	<input type="checkbox"/>					
1d. Magda Marquet, PhD	<input type="checkbox"/>	<input type="checkbox"/>					
The Board of Directors recommends you vote FOR the following proposals:	For	Against	Abstain				
2. Approval of an amendment to the TransCode Therapeutics, Inc. 2021 Stock Option and Incentive Plan to increase the number of shares available for issuance thereunder by 3,000,000 shares.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
3. Ratification of the appointment of WithumSmith+Brown PC as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2024.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
				4. Approval of an amendment to our amended and restated certificate of incorporation, as amended, to authorize our Board of Directors, if they determine that doing so is in the best interest of our shareholders, to effect a reverse stock split of our outstanding shares of common stock, par value \$0.0001 per share, at a ratio, ranging from one-for-two (1:2) to one-for-forty (1:40), with the exact ratio to be set within that range at the discretion of our Board of Directors without further approval or authorization of our stockholders.	For	Against	Abstain
				5. Approval of a proposal to adjourn the Annual Meeting of Stockholders to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of the amendment to the Company's 2021 Stock Option and Incentive Plan proposal and the reverse stock split proposal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				NOTE: Such other business as may properly come before the meeting or any adjournment thereof.			
Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Signature [PLEASE SIGN WITHIN BOX]	Date	Signature (Joint Owners)	Date				

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Notice and Proxy Statement, Annual Report and Form 10-K are available at www.proxyvote.com.

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TRANSCODE THERAPEUTICS, INC.

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

**ANNUAL MEETING OF STOCKHOLDERS
JUNE 13, 2024**

The undersigned, revoking all prior proxies, hereby appoints Thomas A. Fitzgerald, with full power of substitution, as proxy to represent and vote all common stock of TransCode Therapeutics, Inc. (the "Company") which the undersigned will be entitled to vote if personally present at the Annual Meeting of Stockholders (or any adjournment thereof) of the Company to be held on June 13, 2024, at 9:30 a.m., Eastern Time, upon the matters set forth in the Proxy Statement, a copy of which has been received by the undersigned. Each share of common stock is entitled to one vote.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED BY THE STOCKHOLDER(S). IF NO DIRECTIONS ARE INDICATED, THE PROXIES NAMED ABOVE WILL HAVE AUTHORITY TO VOTE 'FOR' THE DIRECTOR NOMINEES LISTED IN PROPOSAL 1 AND 'FOR' PROPOSALS 2 - 5. THE PROXIES ARE AUTHORIZED TO VOTE UPON SUCH OTHER BUSINESS AS MAY PROPERLY COME BEFORE THE MEETING.

PLEASE MARK, SIGN, DATE AND RETURN THIS PROXY CARD PROMPTLY USING THE ENCLOSED REPLY ENVELOPE

CONTINUED AND TO BE SIGNED ON REVERSE SIDE