
SCHEDULE 14A INFORMATION

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

REPARE THERAPEUTICS INC.

(Name of Registrant as Specified In Its Charter)

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

Payment of Filing Fee (Check all boxes that apply)

- No fee required.
 - Fee paid previously with preliminary materials.
 - Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.
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REPAIR THERAPEUTICS INC.

7171 Frederick-Banting, Building 2, Suite 270
St-Laurent, Québec, Canada H4S 1Z9

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS

To be Held on June 17, 2024

Dear Repare Shareholder:

You are cordially invited to attend the 2024 Annual Meeting of Shareholders (the "Annual Meeting") of Repare Therapeutics Inc., a corporation incorporated under the *Business Corporations Act* (Québec). The Annual Meeting will be held on Monday, June 17, 2024, at 10:00 a.m., Eastern Time. The Annual Meeting will be held through a live webcast at www.proxydocs.com/RPTX. In order to attend, you must register in advance at www.proxydocs.com/RPTX prior to the deadline of 5:00 p.m., Eastern Time on June 14, 2024. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the Annual Meeting and will permit you to submit questions. You will not be able to attend the Annual Meeting in person. Shareholders attending the Annual Meeting virtually will be afforded the same rights and opportunities to participate as they would receive at an in-person meeting. We believe that holding the Annual Meeting as a completely virtual meeting will enable us to avoid the costs and complexities associated with meetings held in a hybrid format while preserving a format that encourages U.S. and Canadian shareholder inclusion and participation. In addition, with a view to ensure that all shareholders will have equal opportunities to participate and vote at the Annual Meeting from wherever they may physically be located on June 17, 2024, we have updated certain of our disclosures to specify how shareholders can make or comment on motions or raise points of order through our virtual Annual Meeting web platform. We encourage you to attend online and participate. We recommend that you log in a few minutes before 10:00 a.m., Eastern Time on June 17, 2024 to ensure you are logged in when the Annual Meeting starts.

The Annual Meeting will be held for the following purposes:

1. To elect the two nominees of our board of directors, Susan M. Molineaux, Ph.D. and Ann D. Rhoads, to our board of directors as Class I directors, each to hold office until our Annual Meeting of Shareholders in 2027 and until such director's successor has been duly elected, or if sooner, until the director's death, resignation or removal.
2. To approve, on an advisory basis, the compensation of our named executive officers, as disclosed in the accompanying proxy statement.
3. To appoint Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2024, and to authorize our board of directors to fix Ernst & Young LLP's remuneration.
4. To conduct any other business properly brought before the Annual Meeting.

These items of business are more fully described in the proxy statement accompanying this Notice.

The Annual Meeting will be held virtually through a live webcast. You will be able to attend the Annual Meeting virtually, submit questions and vote during the live webcast by visiting www.proxydocs.com/RPTX and registering prior to the deadline of 5:00 p.m., Eastern Time on June 14, 2024 and entering the Control Number included in your **Notice of Internet Availability**, voting instruction form, or in the instructions that you received

via email. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the Annual Meeting and will permit you to submit questions. If you are a shareholder of the Company, you may submit a question in advance of the Annual Meeting at www.proxydocs.com/RPTX after logging in with your Control Number, during the entirety of the registration period. Please refer to the additional logistical details and recommendations in the accompanying proxy statement.

The record date for the Annual Meeting is April 19, 2024. Only shareholders of record at the close of business on April 19, 2024 may vote at the Annual Meeting or any adjournment thereof.

By Order of the Board of Directors,



Steve Forte
Executive Vice President, Chief Financial Officer

St-Laurent, Québec, Canada
April 26, 2024

You are cordially invited to attend the Annual Meeting. Whether or not you expect to attend the Annual Meeting, PLEASE VOTE YOUR SHARES. As an alternative to voting online during the Annual Meeting, you may vote your shares by proxy in advance of the Annual Meeting via the internet, by telephone or, if you receive a paper proxy card, by mailing the completed proxy card. Voting instructions are provided in the Notice of Internet Availability of Proxy Materials, or, if you receive a paper proxy card by mail, the instructions are printed on your proxy card.

Even if you have voted by proxy, you may still vote online during the Annual Meeting if you attend the Annual Meeting webcast. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the Annual Meeting, you must obtain a proxy issued in your name from that record holder.



REPAIR THERAPEUTICS INC.

7171 Frederick-Banting, Building 2, Suite 270

St-Laurent, Québec, Canada H4S 1Z9

PROXY STATEMENT

FOR THE 2024 ANNUAL MEETING OF SHAREHOLDERS

To be Held on June 17, 2024 at 10:00 a.m., Eastern Time

Our board of directors is soliciting your proxy to vote at the 2024 Annual Meeting of Shareholders (the “Annual Meeting”) of Repare Therapeutics Inc., a corporation incorporated under the Business Corporations Act (Québec), to be held virtually, via live webcast, on Monday, June 17, 2024 at 10:00 a.m., Eastern Time, and any adjournment or postponement thereof. Shareholders attending the Annual Meeting virtually will be afforded the same rights and opportunities to participate as they would receive at an in-person meeting. We believe that holding the Annual Meeting as a completely virtual meeting will enable us to avoid the costs and complexities associated with meetings held in a hybrid format while preserving a format that encourages U.S. and Canadian shareholder inclusion and participation. In addition, with a view to ensure that all shareholders will have equal opportunities to participate and vote at the Annual Meeting from wherever they may physically be located on June 17, 2024, we have updated certain of our disclosures to specify how shareholders can make or comment on motions or raise points of order through our virtual Annual Meeting web platform. In order to attend, you must register in advance at www.proxydocs.com/RPTX prior to the deadline of 5:00 p.m., Eastern Time on June 14, 2024. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the Annual Meeting and will permit you to submit questions.

For the Annual Meeting, we have elected to furnish our proxy materials, including this proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 (the “Annual Report”), to our shareholders primarily via the internet. On or about April 26, 2024, we expect to mail to our shareholders a *Notice of Internet Availability of Proxy Materials* (the “Notice”) that contains notice of the Annual Meeting and instructions on how to access our proxy materials on the internet, how to vote at the Annual Meeting, and how to request printed copies of the proxy materials. Shareholders may request to receive all future materials in printed form by mail or electronically by e-mail by following the instructions contained in the Notice. A shareholder’s election to receive proxy materials by mail or email will remain in effect until revoked. We encourage shareholders to take advantage of the availability of the proxy materials on the internet to help reduce the environmental impact and cost of our Annual Meeting.

Only shareholders of record at the close of business on Friday, April 19, 2024 (the “Record Date”) will be entitled to vote at the Annual Meeting. On the Record Date, there were 42,445,406 common shares outstanding and entitled to vote. A list of shareholders entitled to vote at the Annual Meeting will be available for examination during normal business hours for ten days before the Annual Meeting at our address above. To the extent office access is impracticable, you may email us at investor@reparerx.com for alternative arrangements. The shareholder list will also be available online during the Annual Meeting.

For instructions on how to attend the virtual Annual Meeting, please see the instructions at www.proxydocs.com/RPTX and on page 2 of this proxy statement.

Unless otherwise noted or the context otherwise requires, all information provided in this proxy statement is given as at April 26, 2024. In this proxy statement, we refer to Repare Therapeutics Inc. as “Repare,” “the Company,” “we” or “us” and the board of directors of Repare as “our board of directors.”

The Annual Report, which contains financial statements as of December 31, 2023 and 2022 and for each of the two fiscal years ended December 31, 2023 and our “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” accompanies this proxy statement and is, together with additional information relating to the Company, available on SEDAR+ at www.sedarplus.ca and on EDGAR at www.sec.gov. You also may obtain a copy of the Annual Report without charge by writing to our Secretary at 7171 Frederick-Banting, Building 2, Suite 270, St-Laurent, Québec, Canada H4S 1Z9, Attention: Secretary or by emailing investor@reparex.com. Financial information relating to the Company is provided in our audited financial statements as of December 31, 2023 and 2022 and for each of the two fiscal years ended December 31, 2023.

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Why did I receive a notice regarding the availability of proxy materials on the internet?

Pursuant to rules adopted by the Securities and Exchange Commission (the “SEC”) and the “Notice-and-Access” provisions of Canadian securities laws under National Instrument 54-101 – *Communication with Beneficial Owners of Securities of a Reporting Issuer* and National Instrument 51-102 – *Continuous Disclosure Obligations*, we have elected to provide access to our proxy materials over the internet. Accordingly, we have sent you a *Notice of Internet Availability of Proxy Materials* (the “Notice”) because our board of directors is soliciting your proxy to vote at the 2024 Annual Meeting of Shareholders (the “Annual Meeting”), including at any adjournments or postponements of the Annual Meeting. All shareholders will have the ability to access the proxy materials on the website referred to in the Notice or request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the internet or to request a printed copy may be found in the Notice.

We intend to mail the Notice on or about April 26, 2024 to all shareholders of record entitled to vote at the Annual Meeting.

Will I receive any other proxy materials by mail?

We may send you a proxy card, along with a second Notice, on or after ten calendar days have passed since our first mailing of the Notice.

How do I attend, participate in, and ask questions during the virtual Annual Meeting?

We will be hosting the Annual Meeting via live webcast only. Any shareholder can attend the virtual Annual Meeting live online by registering at www.proxydocs.com/RPTX. The Annual Meeting will start at 10:00 a.m., Eastern Time, on Monday, June 17, 2024. Shareholders attending the Annual Meeting will be afforded the same rights and opportunities to participate as they would at an in-person meeting.

In order to attend, you must register in advance at www.proxydocs.com/RPTX prior to the deadline of 5:00 p.m., Eastern Time on June 14, 2024. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the Annual Meeting and will permit you to submit questions. In order to register for the Annual Meeting, you will need the control number, which is included in the Notice or on your proxy card if you are a shareholder of record of common shares, or included with your voting instruction card and voting instructions received from your broker, bank or other agent if you hold your common shares in a “street name.” We recommend that you log in a few minutes before 10:00 a.m., Eastern Time to ensure you are logged in when the Annual Meeting starts. The virtual meeting room will open 15 minutes before the start of the Annual Meeting.

If you would like to submit a question during the Annual Meeting, you may log in at www.proxydocs.com/RPTX using your control number, type your question into the “Ask a Question” field, and click “Submit.”

To help ensure that we have a productive and efficient meeting, and in fairness to all shareholders in attendance, you will also find our rules of conduct for the Annual Meeting posted when you log into the platform prior to the start of the Annual Meeting. These rules of conduct will include the following guidelines:

- We welcome questions from shareholders relevant to the Annual Meeting. An opportunity will be provided to present questions and comments during the question and answer session, which will include questions submitted live during the Annual Meeting.
- Only shareholders of record as of April 19, 2024 (the “Record Date”) and their proxy holders may submit questions or comments.
- You may submit questions and comments electronically through the meeting portal during the Annual Meeting. Management will respond to appropriate questions in the order received.

- Please direct all questions to Lloyd Segal, our President and Chief Executive Officer, Thomas Civik, our Board Chairperson, or Steve Forte, our Chief Financial Officer, who has been appointed as Secretary of the Annual Meeting.
- Please include your name and affiliation, if any, when submitting a question or comment.
- Limit your remarks to one brief question or comment that is relevant to the Annual Meeting and/or our business. Up to one minute will be allocated to each submitted question or comment.
- Questions may be grouped by topic by our management.
- Questions may also be ruled as out of order if they are, among other things, irrelevant to our business, related to pending or threatened litigation, disorderly, repetitious of statements already made, or in furtherance of the speaker's own personal, political or business interests.

Can I make or comment on a motion or raise a point of order at the virtual Annual Meeting?

Making or commenting on a motion, or raising a point of order can be done by selecting the messaging field and typing in the motion or point of order submission, a similar process as one would do when submitting a question and inserting into the messaging field. The chair of the Annual Meeting can allow a motion from a participant during the Annual Meeting, at the chair's discretion. If the motion is allowed, the participant shall be asked to move the adoption of the motion. Motions must be seconded. Participants may intervene and make a comment on a motion or raise a point of order. The chair may direct participants to confine remarks to the subject motion and to avoid repeating the same remarks made by other participants. The chair may refuse to consider any intervention that does not comply with these standards. A motion may be amended by any participant and the amendment must be seconded in the same manner as the main motion.

What if I have technical difficulties or trouble accessing the virtual Annual Meeting?

We will have technicians ready to assist you with any technical difficulties you may have accessing the virtual Annual Meeting. If you encounter any difficulties accessing the virtual Annual Meeting during the check-in or meeting time, please call the technical support number that will be provided in your email prior to the start of the Annual Meeting.

For the Annual Meeting, how do we ask questions of management and the board?

We plan to have a Q&A session at the Annual Meeting and will respond to shareholder questions as appropriate, within the permitted time. Shareholders may submit questions that are relevant to our business in advance of the Annual Meeting as well as live during the Annual Meeting. If you are a shareholder, you may submit a question in advance of the Annual Meeting at www.proxydocs.com/RPTX after logging in with your Control Number, during the entirety of the registration period.

Who can vote at the Annual Meeting?

Only shareholders of record at the close of business on the Record Date will be entitled to vote at the Annual Meeting. On the Record Date, there were 42,445,406 common shares outstanding and entitled to vote.

Shareholder of Record: Shares Registered in Your Name

If on the Record Date your shares were registered directly in your name with our transfer agent, Computershare Investor Services Inc., then you are a shareholder of record. As a shareholder of record, you may vote online during the Annual Meeting or vote by proxy. Whether or not you plan to attend the Annual Meeting, we urge you to vote your shares by proxy in advance of the Annual Meeting, either electronically through the internet, by telephone or by completing and returning a printed proxy card that you may request or that we may elect to deliver at a later time, to ensure your vote is counted. See "How do I vote?—Shareholder of Record: Shares Registered in Your Name" below for a description of the appointment of a third party as proxyholder.

Beneficial Owner: Shares Registered in the Name of a Broker or Bank

If on the Record Date your shares were held, not in your name, but rather in an account at a brokerage firm, bank or other similar organization, then you are the beneficial owner of shares held in “street name” and the Notice is being forwarded to you by that organization. The organization holding your account is considered to be the shareholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker, bank or other agent regarding how to vote the shares in your account. You are also invited to attend the Annual Meeting. However, since you are not the shareholder of record, you may be instructed to obtain a legal proxy from your broker, bank or other nominee and to submit a copy in advance of the meeting. Further instructions will be provided to you as part of your registration process.

What am I voting on?

At the Annual Meeting, there are three matters scheduled for a vote:

- **Proposal 1:** Election of the two nominees of our board of directors, Susan M. Molineaux, Ph.D. and Ann D. Rhoads, to our board of directors as Class I directors, each to hold office until our Annual Meeting of Shareholders in 2027 and until such director’s successor has been duly elected, or if sooner, until the director’s death, resignation or removal;
- **Proposal 2:** Advisory approval of the compensation of our named executive officers, as disclosed in this proxy statement in accordance with SEC rules; and
- **Proposal 3:** Appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2024 and to authorize our board of directors to fix Ernst & Young LLP’s remuneration.

In addition, you will be asked to transact such other business, if any, as may properly come before the Annual Meeting or any adjournment or postponement thereof.

What if another matter is properly brought before the Annual Meeting?

Our board of directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote on those matters in accordance with their best judgment.

How do I vote?

The procedures for voting are fairly simple.

Shareholder of Record: Shares Registered in Your Name

If you are a shareholder of record, you may vote (1) online during the Annual Meeting, or (2) in advance of the Annual Meeting by proxy through the internet, by telephone or by using a proxy card that you may request or that we may elect to deliver at a later time. Whether or not you plan to attend the Annual Meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the Annual Meeting and vote online even if you have already voted by proxy.

- To vote online **during** the Annual Meeting, if you are a shareholder of record as of the Record Date, follow the instructions at www.proxydocs.com/RPTX. You will need to enter the Control Number found on your Notice or in the email sending you the proxy statement.
- To vote **prior** to the Annual Meeting, you may vote via the internet at www.proxypush.com/RPTX; by telephone; or by completing and returning their proxy card or voting instruction form, as described below.

- To vote through the internet prior to the Annual Meeting, go to www.proxypush.com/RPTX and follow the instructions in the Notice or on the proxy card to submit your vote on an electronic proxy card. You will be asked to provide your Control Number from the Notice or proxy card.
- To vote over the telephone, if you received a Notice or printed copy of the Proxy Materials, follow the instructions provided in the Notice or proxy card. You will be asked to provide your Control Number from the Notice or proxy card.
- To vote using the proxy card, simply complete, sign and date the proxy card that may be delivered to you and return it promptly in the envelope provided. If you return your signed proxy card to us before the Annual Meeting, we will vote your shares as you direct.

Shareholders of record who wish to appoint a third-party proxyholder other than the persons identified on the proxy card to attend, participate or vote at the Annual Meeting as their proxy and vote their shares MUST submit their proxy card appointing such third-party proxyholder AND register the third-party proxyholder, as described below. Registering your proxyholder is an additional step to be completed AFTER you have submitted your proxy. Failure to register the proxyholder will result in the proxyholder not receiving access to attend, participate or vote at the Annual Meeting.

- **Step 1:** To appoint a third-party proxyholder, insert such person's name and email in the blank space provided in the proxy card and follow the instructions for submitting such proxy card by mail. This must be completed prior to registering such proxyholder, which is an additional step to be completed once you have submitted your proxy card.
- **Step 2:** To register a duly appointed third-party proxyholder, shareholders **MUST** provide the proxyholder contact information requested by Mediant Communications in order to be provided with the information and credentials to access, attend, participate or vote at the Annual Meeting.
- **Proxies appointing a third-party proxyholder must be deposited in accordance with the instructions set forth on the proxy card by no later than 10:00 a.m., Eastern Time, on June 14, 2024, or if the Annual Meeting is postponed or adjourned, by no later than 48 hours prior to the time of such postponed or adjourned meeting (excluding Saturdays, Sundays and holidays). We reserve the right to accept late proxies and to waive the proxy cut-off, with or without notice.**

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If you are a beneficial owner of shares registered in the name of your broker, bank or other agent, you should have received a Notice containing voting instructions from that organization rather than from us. To vote *prior to the Annual Meeting*, simply follow the voting instructions in the Notice to ensure that your vote is counted. To vote *online during the Annual Meeting*, you must obtain a valid proxy from your broker, bank or other agent. Follow the instructions from your broker, bank or other agent included with these proxy materials, or contact that organization to request a proxy form. You may access and vote at the Annual Meeting by logging in with your Control Number on your voting instruction form at www.proxydocs.com/RPTX. However, since you are not the shareholder of record, you may be instructed to obtain a legal proxy from your broker, bank or other nominee and to submit a copy in advance of the meeting. Further instructions will be provided to you as part of your registration process.

Internet proxy voting will be provided to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

How many votes do I have?

On each matter to be voted upon, you have one vote for each common share you own as of the Record Date.

If I am a shareholder of record and I do not vote, or if I return a proxy card or otherwise vote without giving specific voting instructions, what happens?

If you are a shareholder of record and do not vote through the internet, by telephone, by completing the proxy card that may be delivered to you or online during the Annual Meeting, your shares will not be voted.

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, “**FOR**” the election of all two of our board of directors’ nominees for director, “**FOR**” the advisory approval of executive compensation and “**FOR**” the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2024, and to authorize our board of directors to fix Ernst & Young LLP’s remuneration. If any other matter is properly presented at the Annual Meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using the proxyholder’s best judgment.

If you have specified on the proxy card how you want your shares to be voted on a particular matter, then your proxyholder must vote your shares accordingly. If you have not specified on the proxy card how you want your shares to be voted on a particular matter, then your proxyholder can vote your shares as he or she sees fit.

If I am a beneficial owner of shares held in street name and I do not provide my broker or bank with voting instructions, what happens?

If you are a beneficial owner of shares held in street name and you do not instruct your broker, bank or other agent how to vote your shares, the question of whether your broker or nominee will still be able to vote your shares depends on whether, pursuant to stock exchange rules, the particular proposal is deemed to be a “routine” matter. Brokers and nominees can use their discretion to vote “uninstructed” shares with respect to matters that are considered to be “routine”, but not with respect to “non-routine” matters. Under applicable rules and interpretations, “non-routine” matters are matters that may substantially affect the rights or privileges of shareholders, such as mergers, shareholder proposals, elections of directors (even if not contested), executive compensation, and certain corporate governance proposals, even if management-supported. In this regard, Proposals 1 and 2 are considered to be “non-routine” under applicable rules, meaning your broker or nominee may not vote your shares on Proposals 1 or 2 without your instructions. Such an event would result in a “broker non-vote” and these shares will not be counted as having been voted for such proposals. However, your broker or nominee may vote your shares on Proposal 3.

If you are a beneficial owner of shares held in street name, and you do not plan to attend the Annual Meeting, in order to ensure your shares are voted in the way you would prefer, you must provide voting instructions to your broker, bank or other agent by the deadline provided in the materials you receive from your broker, bank or other agent.

Can I change my vote after submitting my proxy?

Shareholder of Record: Shares Registered in Your Name

Yes. You can revoke your proxy at any time before the final vote at the Annual Meeting. If you are the record holder of your shares, you may revoke your proxy in any one of the following ways:

- You may submit another properly completed proxy card with a later date.
- You may grant a subsequent proxy by telephone or through the internet.
- You may send a timely written notice that you are revoking your proxy to our Secretary at c/o Repare Therapeutics Inc., 7171 Frederick-Banting, Building 2, Suite 270, St-Laurent, Québec, Canada H4S 1Z9, Attention: Secretary.
- You may attend the Annual Meeting and vote online during the Annual Meeting. Simply attending the Annual Meeting will not, by itself, revoke your proxy. Even if you plan to attend the Annual Meeting,

we recommend that you also submit your proxy or voting instructions or vote in advance of the Annual Meeting by telephone or through the internet so that your vote will be counted if you later decide not to attend the Annual Meeting.

Your most current proxy card or telephone or internet proxy is the one that is counted.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If your shares are held by your broker, bank or other agent, you should follow the instructions provided by your broker, bank or other agent.

What are “broker non-votes”?

As discussed above, when a beneficial owner of shares held in street name does not give voting instructions to the beneficial owner’s broker, bank or other securities intermediary holding such beneficial owner’s shares as to how to vote on matters deemed to be “non-routine,” the broker, bank or other such agent cannot vote the shares. These un-voted shares are counted as “broker non-votes.”

As a reminder, if you are a beneficial owner of shares held in street name, in order to ensure your shares are voted in the way you would prefer, you must provide voting instructions to your broker, bank or other agent by the deadline provided in the materials you receive from your broker, bank or other agent.

How are votes counted?

Votes will be counted by the inspector of election appointed for the Annual Meeting, who will separately count, for the proposal to elect directors, votes “**FOR**,” “**WITHHOLD**” and broker non-votes; for the proposal regarding advisory approval of executive compensation, votes “**FOR**,” “**AGAINST**” and broker non-votes; and for the proposal to appoint Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2024, and to authorize our board of directors to fix Ernst & Young LLP’s remuneration, votes “**FOR**” and “**WITHHOLD**.”

How many votes are needed to approve each proposal?

The following table summarizes the minimum vote needed to approve each proposal and the effect of broker non-votes.

<u>Proposal No.</u>	<u>Proposal Description</u>	<u>Vote Required for Approval</u>	<u>Effect of Broker Non-Votes</u>
1	Election of directors	Directors will be elected by a plurality of the votes cast at the Annual Meeting by the holders of shares present by remote communication or represented by proxy and entitled to vote on the election of directors. The two nominees receiving the most “FOR” votes will be elected as directors; withheld votes will have no effect	No effect
2	Advisory vote to approve the compensation of our named executive officers	“FOR” votes from the holders of a simple majority of shares present by remote communication or represented by proxy and entitled to vote on the subject matter	No effect

Proposal No.	Proposal Description	Vote Required for Approval	Effect of Broker Non-Votes
3	Appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2024, and to authorize our board of directors to fix Ernst & Young LLP's remuneration	"FOR" votes from the holders of a simple majority of shares present by remote communication or represented by proxy and entitled to vote on the subject matter	Not applicable ⁽¹⁾

(1) This proposal is considered to be a "routine" matter. Accordingly, if you hold your shares in street name and do not provide voting instructions to your broker, bank or other agent that holds your shares, your broker, bank or other agent has discretionary authority to vote your shares on this proposal.

Who will count the vote?

A representative of Mediant Communications, Inc. will tabulate the votes and act as the inspector of election.

What is the quorum requirement?

A quorum of shareholders is necessary to hold a valid Annual Meeting. A minimum of two persons who either are, or represent by proxy, shareholders holding, in the aggregate, at least 25% of the outstanding common shares entitled to vote at the Annual Meeting will constitute a quorum for the transaction of business at the Annual Meeting. Votes withheld and broker non-votes will be counted for purposes of determining the presence of a quorum.

Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

What does it mean if I receive more than one Notice?

If you receive more than one Notice, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on the Notices to ensure that all of your shares are voted.

How can I find out the results of the voting at the Annual Meeting?

Preliminary voting results will be announced at the Annual Meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the Annual Meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

When are shareholder proposals and director nominations due for next year's annual meeting?

To be considered for inclusion in next year's proxy materials, your proposal must be submitted in writing by December 27, 2024 for proposals submitted pursuant to Rule 14a-8 promulgated under the Exchange Act. Any such proposals should be submitted to our Secretary c/o Repare Therapeutics Inc., 7171 Frederick-Banting, Building 2, Suite 270, St-Laurent, Québec, Canada H4S 1Z9, Attention: Secretary.

Nominations for director (made other than pursuant to a shareholder proposal) for inclusion in next year's proxy materials must satisfy the criteria and procedures prescribed under the *Business Corporations Act* (Québec) ("QBCA") and our By-Law No. 2020-1 (the "Bylaws"). To be timely, a shareholder's notice must be made:

- in the case of an annual meeting of shareholders (including an annual and special meeting), not less than 30 nor more than 60 days prior to the date of the annual meeting of shareholders; provided, however, that in the event that the annual meeting of shareholders is to be held on a date that is less than 50 days after the date (the "Notice Date") on which the first public announcement of the date of the annual meeting is made, notice by the nominating shareholder may be made not later than the close of business on the tenth day following the Notice Date; and
- in the case of a special meeting (which is not also an annual meeting) of shareholders called for the purpose of electing directors (whether or not also called for other purposes), not later than the close of business on the 15th day following the day on which the first public announcement of the date of the meeting was made.

Our Bylaws also prescribe the proper written form for a shareholder's notice as well as additional requirements in connection with nominations. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected. Subject to our board of directors' discretion as provided in our Bylaws, shareholders who fail to comply with the advance notice requirements and the other requirements set out in the Bylaws, would not be entitled to make nominations for directors at an annual or special meeting of shareholders.

PROPOSAL 1
ELECTION OF DIRECTORS

As recommended by the nominating and corporate governance committee, the board's nominees for election as directors are Susan M. Molineaux, Ph.D. and Ann D. Rhoads, who are Class I directors whose term of office expires at the Annual Meeting. Current Class I director Todd Foley, who is not standing for re-election, will continue to serve as a director until his term expires at the Annual Meeting. If elected at the Annual Meeting, each of Dr. Molineaux and Ms. Rhoads would serve until the Annual Meeting of Shareholders to be held in 2027 and until such director's successor has been duly elected, or if sooner, until the director's death, resignation or removal.

Dr. Molineaux and Ms. Rhoads are each current members of our board of directors and, upon the recommendation of our nominating and corporate governance committee, have been nominated for reelection to serve as a Class I director. Ms. Rhoads was previously elected to our board of directors by our shareholders. Dr. Molineaux was appointed to our board of directors in June 2023 to fill the vacancy on the board created by a director resignation. Each of Dr. Molineaux and Ms. Rhoads has agreed to stand for re-election at the Annual Meeting, and our management has no reason to believe that either nominee will be unable to serve.

Plurality Voting: Directors are elected by a plurality of the votes of the holders of shares present by virtual attendance or represented by proxy and entitled to vote on the election of directors. Accordingly, the two nominees receiving the highest number of "FOR" votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the two nominees named above. Proxies cannot be voted for a greater number of persons than the two nominees named in this proxy statement. If any nominee becomes unavailable for election as a result of an unexpected occurrence, shares that would have been voted for that nominee instead will be voted for the election of a substitute nominee proposed by us.

Director Selection: Our nominating and corporate governance committee employs a rigorous, thorough and in-depth process to identify director candidates and recommend the strongest possible director nominees to the full board of directors. The nominating and corporate governance committee seeks to assemble a board that, as a whole, possesses the appropriate balance of professional and industry knowledge, financial expertise, public company governance experience, diversity and high-level management experience necessary to oversee and direct our business and strategy.

Our nominating and corporate governance committee deliberates on and determines the skills and experience that would best serve the board of directors and Repare and that would address any gaps identified in the annual assessment process of our board of directors, with the goal of recruiting members who complement and strengthen the skills of other members and who also represent the highest standards of integrity, collegiality, sound business judgment and other qualities that the nominating and corporate governance committee views as critical to effective functioning of the board. To provide a mix of experience and perspective on the board, the nominating and corporate governance committee also takes into account gender, sexual preference, disability, age, ethnicity, business experience, industry experience, functional expertise, stakeholder expectations, culture and geography.

The nominating and corporate governance committee considers director candidates recommended by shareholders, directors and other sources, and also engages an executive search firm from time to time to assist in identifying prospective candidates. When selecting candidates for recommendation to the board of directors, the nominating and corporate governance committee considers the attributes of the candidates and the needs of our board of directors and reviews all candidates in the same manner, regardless of the source of the recommendation. In evaluating director nominees, a candidate is expected to have certain minimum qualifications, including being able to read and understand basic financial statements, having familiarity with our business and industry, having high moral character and mature judgment and being able to work collegially with others.

In addition, factors such as the following may be considered:

- the independence standards as set forth in the applicable Nasdaq listing standards, the presence of any material interests that could cause a conflict between our interests and the interests of the director nominee, and the director nominee's ability to exercise such director nominee's best business judgment in the interest of all shareholders;
- the knowledge, skills and experience of the director nominee, including experience in the industry in which Repare operates, as well as in the general areas of clinical development, business, finance, management and public service, in light of prevailing business conditions and the knowledge, skills and experience already possessed by other members of our board of directors;
- the director nominee's ability to devote sufficient time to the business of our board of directors and at least one of the standing committees of the board of directors, in light of the number of other boards on which the director nominee serves (for profit and not-for-profit) and the other business and professional commitments of the director nominee;
- the appropriate size and the diversity of our board of directors;
- how the director nominee's skills and experience would complement and enhance the overall mix of skills and experience on our board of directors; and
- the director nominee's experience with public company governance and relevant accounting rules and practices.

Before the nominating and corporate governance committee recommends a qualified director nominee to our board of directors for consideration, the nominee is interviewed by each member of the board of directors and meets with the chief executive officer and other senior executives.

The biographies below under "Information Regarding Director Nominees and Current Directors" include information, as of the date of this proxy statement, regarding the specific and particular experience, qualifications, attributes or skills of each director or director nominee that led the committee to believe that that nominee should continue to serve on the board. However, each of the members of the nominating and corporate governance committee may have a variety of reasons why a particular person would be an appropriate nominee for the board, and these views may differ from the views of other members.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" EACH CLASS I DIRECTOR NOMINEE NAMED ABOVE.

INFORMATION REGARDING DIRECTOR NOMINEES AND CURRENT DIRECTORS

Our board of directors currently consists of nine members and is divided into three classes as follows:

- Class I, which consists of Todd Foley, Susan M. Molineaux, Ph.D. and Ann D. Rhoads, whose terms will expire at the upcoming Annual Meeting;
- Class II, which consists of David Bonita, M.D., Thomas Civik and Carol A. Schafer, whose terms will expire at the Annual Meeting of Shareholders to be held in 2025; and
- Class III, which consists of Samarth Kulkarni, Ph.D., Briggs Morrison, M.D., and Lloyd M. Segal, whose terms will expire at the Annual Meeting of Shareholders to be held in 2026.

Each class consists, as nearly as possible, of one-third of the total number of directors, and each class has a three-year term. At each annual meeting of shareholders, the successors to directors whose terms then expire will be elected to serve from the time of election until the third annual meeting following the election. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. Vacancies on the board of directors may be filled only by persons elected by a majority of the remaining directors. A director elected by the board of directors to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director's successor is duly elected and qualified. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control of Repare.

The following table sets forth, for the Class I nominees, our other directors who will continue in, or be appointed into, office after the Annual Meeting and our Class I director not continuing in office after the Annual Meeting, their ages and position or office held with us as of the date of this proxy statement:

NAME	AGE	POSITION(S)	DIRECTOR SINCE	RESIDENCE
<i>Class I directors whose terms expire at the 2024 Annual Meeting of Shareholders and are nominees for election</i>				
Susan M. Molineaux, Ph.D.	70	Director	June 2023	California (USA)
Ann D. Rhoads	58	Director	June 2020	Montana (USA)
<i>Class II directors continuing in office until the 2025 Annual Meeting of Shareholders</i>				
David Bonita, M.D.	48	Director	September 2019	Connecticut (USA)
Thomas Civik	55	Chair of the Board of Directors	September 2021	Idaho (USA)
Carol A. Schafer	60	Director	March 2019	Florida (USA)
Steven H. Stein, M.D. ⁽¹⁾	57	Director ⁽¹⁾	N/A ⁽¹⁾	Pennsylvania (USA)
<i>Class III directors continuing in or appointed into office until the 2026 Annual Meeting of Shareholders</i>				
Samarth Kulkarni, Ph.D.	45	Director	November 2019	Massachusetts (USA)
Briggs Morrison, M.D.	65	Director	June 2017	Pennsylvania (USA)
Lloyd M. Segal	60	President, Chief Executive Officer, and Director	September 2016	Québec (Canada)
<i>Class I director not continuing in office after the 2024 Annual Meeting of Shareholders</i>				
Todd Foley ⁽²⁾	52	Director	June 2017	Wyoming (USA)

(1) Dr. Stein has been appointed to serve as a Class II director, effective as of the date of the Annual Meeting.

(2) Mr. Foley will not be standing for re-election at the Annual Meeting and will retire from the board at the expiration of his current term as a Class I director, as of the date of the Annual Meeting.

Set forth below is biographical information for the director nominees and each person whose term of office as a director will continue after the Annual Meeting. This includes information regarding each director's experience, qualifications, attributes or skills that led our board of directors to recommend them for board service.

Nominees for Election at the 2024 Annual Meeting of Shareholders

Susan M. Molineaux, Ph.D. has served as a member of our board of directors since June 2023. Dr. Molineaux currently serves as the President and Chief Executive Officer of Para Therapeutics Inc., a position she has held since April 2023. From March 2010 to March 2023, Dr. Molineaux served as the co-founder, President, Chief Executive Officer and as a member of the board of directors of Calithera Biosciences, Inc. Prior to Calithera, Dr. Molineaux co-founded Proteolix, Inc., where she served as Chief Scientific Officer from 2003 to 2005, Chief Executive Officer from January 2006 to January 2009 and again as Chief Scientific Officer from February 2009 until Proteolix's acquisition by Onyx Pharmaceuticals, Inc. in November 2009. From 2000 to 2003, Dr. Molineaux served as Vice President of Biology at Rigel Pharmaceuticals, Inc. From 1999 to 2000, she served as Vice President of Biology at Praelux, Inc., and from 1994 through 1999, she served as Vice President of Drug Development at Praecis Pharmaceuticals, Inc. From 1989 until 1994, she was a scientist in the Immunology group at Merck & Co. Dr. Molineaux currently serves as a member of the boards of directors of Geron Corporation and she previously served on the board of directors of Theravance Biopharma, Inc. from May 2015 to April 2022 and Cyteir Therapeutics, Inc. from December 2020 to May 2023. She is also a Scientific Advisor for Lightstone Ventures. Dr. Molineaux received a B.S. in Biology from Smith College and a Ph.D. in Molecular Biology from Johns Hopkins University and completed a postdoctoral fellowship at Columbia University. Our board of directors believes that Dr. Molineaux's extensive management experience, particularly in the biotechnology space and deep expertise in drug development and research, in addition to her experience as a member of the boards of directors of multiple publicly traded biotech and pharmaceutical companies, qualify her to serve on our board of directors.

Ann D. Rhoads has served as a member of our board of directors since June 2020. Ms. Rhoads most recently served as Chief Financial Officer of Forty Seven, Inc., a position she held from March 2018 until its acquisition by Gilead Sciences Inc. in 2020. Previously, from 2010 to January 2017, Ms. Rhoads was Executive Vice President and Chief Financial Officer of Zogenix, Inc. From 1998 through 2009, Ms. Rhoads was at Premier, Inc., serving as Vice President, Strategic Initiatives from 1998 to 2000 before serving as Chief Financial Officer from 2000 through 2009. Ms. Rhoads currently serves on the boards of directors of Globus Medical Inc., QuidelOrtho Corporation (formerly Quidel Corporation) and iTeos Therapeutics Inc. and she previously served on the boards of directors of Evoke Pharma, Inc., Iridex Corporation and Novellus Systems, Inc. Ms. Rhoads received a B.S. in Finance from the University of Arkansas and an M.B.A. from Harvard Business School. Our board of directors believes that Ms. Rhoads' extensive experience as a chief financial officer of multiple publicly traded biotech and pharmaceutical companies, in addition to her experience as a member of the boards of directors of multiple publicly traded biotech and pharmaceutical companies, qualify her to serve on our board of directors.

Directors Continuing in Office Until the 2025 Annual Meeting of Shareholders

David Bonita, M.D. has served as a member of our board of directors since September 2019. Dr. Bonita is a member at OrbiMed Advisors LLC, an investment firm. He currently serves on the boards of directors of Acutus Medical Inc., Ikena Oncology, Inc., Prelude Therapeutics Inc. and Third Harmonic Bio, Inc., as well as several private companies. Dr. Bonita also previously served on the boards of directors of Clementia Pharmaceuticals Inc., IMARA Inc., SI-BONE, Inc., and Tricida, Inc. Prior to OrbiMed, Dr. Bonita worked as a corporate finance analyst in the healthcare investment banking groups of Morgan Stanley and UBS. He received his B.A. in biology from Harvard University and his joint M.D./M.B.A. from Columbia University. Our board of directors believes that Dr. Bonita's extensive investment experience in the healthcare industry and his experience on the boards of directors of several public and private companies qualify him to serve on our board of directors.

Thomas Civik has served as chair of our board of directors since September 2021. Mr. Civik most recently served as President, Chief Executive Officer and a member of the board of directors of Five Prime Therapeutics from April 2020 until its acquisition by Amgen Inc. in April 2021. He previously served as Chief Commercial Officer at Foundation Medicine, Inc. from November 2017 until September 2019. From December 2000 to November 2017, Mr. Civik held various roles of increasing responsibility over a 17-year career at Genentech, Inc., including responsibility for therapies such as Avastin, Tecentriq, Alecensa and Tarceva. In addition, Mr. Civik currently serves on the board of directors of Pyxis Oncology, Inc. Mr. Civik received a B.A. in political science from Saint Norbert College and an M.B.A. in business strategy and marketing from the Kellogg School of Management at Northwestern University. Our board of directors believes that Mr. Civik's extensive experience as an executive and director in the life sciences industry qualifies him to serve on our board of directors.

Carol A. Schafer has served as a member of our board of directors since March 2019. Ms. Schafer has more than 25 years of experience in investment banking, equity capital markets, corporate finance and business development in the biopharmaceutical sector. From April 2007 to September 2018, she worked at Wells Fargo Securities, most recently serving as Vice Chair, Equity Capital Markets. From December 2003 to February 2007, Ms. Schafer served as Vice President of Finance and Business Development at Lexicon Pharmaceuticals. Prior to that, Ms. Schafer worked at J.P. Morgan, where she held positions of increasing responsibility, most recently serving as a Managing Director in Equity Capital Markets. Ms. Schafer currently serves on the boards of directors of Immunome, Inc., Insmed Incorporated and Kura Oncology, Inc. She served on the boards of directors of Five Prime Therapeutics, Inc. from May 2019 until it was acquired by Amgen in April 2021, and of Idera Pharmaceuticals, Inc. from December 2018 to September 2022. Ms. Schafer received a B.A. from Boston College and an M.B.A. from New York University. Our board of directors believes that Ms. Schafer's extensive financial background and experience providing investment banking, equity capital markets and strategic support to companies within the healthcare sector qualify her to serve on our board of directors.

Steven H. Stein, M.D. has been appointed to our board of directors, effective as of the date of the Annual Meeting. Dr. Stein currently serves as the Chief Medical Officer of Incyte Corporation, a position he has held since March 2015. At Incyte, he leads all medical and scientific activities involving clinical development, clinical operations, pharmacovigilance, clinical pharmacology, scientific communications and medical affairs. Prior to joining Incyte, from May 2011 to February 2015, Dr. Stein served as the Senior Vice President and Head of U.S. Clinical Development and Medical Affairs at Novartis Oncology. Prior to then, he was employed by GlaxoSmithKline from February 2004 to April 2011, serving first as its Head of Medicines Development for Hematology and Supportive Care and then as its Vice President, Global Oncology, Clinical Development. Dr. Stein also previously served on the board of directors of Kura Oncology, Inc. from 2017 until May 2023. Dr. Stein earned his MBChB from the University of Witwatersrand in Johannesburg, South Africa. He has authored more than 100 scientific papers and presentations and is an Adjunct Assistant Professor in the School of Medicine, University of Pennsylvania. Dr. Stein is also an active member of several professional and scientific societies and academic committees. Our board of directors believes that Dr. Stein's medical background and extensive clinical development and operational experience qualify him to serve on our board of directors.

Directors Continuing in or Appointed into Office Until the 2026 Annual Meeting of Shareholders

Samarth Kulkarni, Ph.D. has served as a member of our board of directors since November 2019. Dr. Kulkarni currently serves as Chairman and Chief Executive Officer of CRISPR Therapeutics AG, a position he has held since 2017, and as a member of its board of directors since 2017. Dr. Kulkarni initially joined CRISPR in August 2015 as Chief Business Officer, and then served as CRISPR's President and Chief Business Officer from May 2017 to November 2017. Prior to joining CRISPR, Dr. Kulkarni was a partner within the pharmaceuticals and biotechnology practice at McKinsey & Company, where he held various positions of increasing responsibility after joining in 2006. He also serves on the boards of directors of Black Diamond Therapeutics, Inc. and Centessa Pharmaceuticals plc. Dr. Kulkarni received a Ph.D. in bioengineering and nanotechnology from the University of Washington and a B. Tech. from the Indian Institute of Technology. Our

board of directors believes that Dr. Kulkarni's extensive management and industry experience qualify him to serve on our board of directors.

Briggs Morrison, M.D. has served as a member of our board of directors since June 2017. Dr. Morrison currently serves as the Chief Executive Officer and as a member of the board of directors of Crossbow Therapeutics, a position he has held since February 2022. He also serves as an executive partner at MPM Capital LLC, a healthcare-focused venture capital firm, a position he has held since June 2015. Prior to joining Crossbow, Dr. Morrison was employed by Syndax Pharmaceuticals, Inc., serving as its President, Head of Research and Development from February 2022 to March 2023 and as its Chief Executive Officer from June 2015 to February 2022. Prior to joining Syndax, he served as Executive Vice President, Global Medicines Development and Chief Medical Officer at AstraZeneca plc from January 2012 to June 2015, leading the company's global, late-stage development organization and serving as a member of the AstraZeneca senior executive team. From October 2007 to December 2011, Dr. Morrison held a number of positions of increasing responsibility at Pfizer Inc., culminating in his appointment as Head, Medical Affairs, Safety and Regulatory Affairs for Pfizer's human health business. Dr. Morrison served as chairman of the board of TransCelerate BioPharma Inc. from 2014 to 2015, a member of the executive committee of the Clinical Trials Transformation Initiative sponsored by FDA, and was on the board of the Alliance for Clinical Research Excellence and Safety. In addition, Dr. Morrison currently serves on the boards of directors of Syndax Pharmaceuticals Inc., Carisma Therapeutics Inc., Arvinas, Inc. and Werewolf Therapeutics, Inc., as well as on the boards of directors of several private companies including Crossbow. Dr. Morrison also previously served on the boards of directors of Codiak Biosciences, Inc., NextCure, Inc. and Oncorus, Inc. Dr. Morrison received a B.S. in biology from Georgetown University and an M.D. from the University of Connecticut Medical School. He completed residency training in internal medicine at Massachusetts General Hospital and a fellowship in medical oncology at the Dana-Farber Cancer Institute. Our board of directors believes that Dr. Morrison's extensive executive leadership experience, his medical background and training and his service on the boards of other public and private biopharmaceutical and biotechnology companies qualify him to serve on our board of directors.

Lloyd M. Segal has served as our President and Chief Executive Officer and as a member of our board of directors since our incorporation in September 2016. From February 2010 to January 2016, he was a Managing Partner with Persistence Capital Partners, a Canadian-based healthcare private equity investor. Previously, Mr. Segal was a consultant with McKinsey & Company, and served as chief executive officer of several emerging biotechnology companies including Advanced Bioconcept Inc., Caprion Pharmaceuticals Inc. (now CellCarta Biosciences Inc.), which he co-founded, and Thallion Pharmaceuticals Inc. He serves as a member of the board of directors of Aktis Oncology Inc., a private, venture-funded radiotherapy-focused oncology research company. Mr. Segal previously served as Chairman of LMC Diabetes & Endocrinology, Canada's leading national endocrinology clinical and research practice. From June 2016 to March 2020, Mr. Segal served as Entrepreneur-in-Residence with Versant Ventures, a biotechnology venture capital firm based in San Francisco. He was honored in 2013 by the Financial Times as Outstanding Director of the Year for public companies and also previously served on the boards of directors of several public and private U.S. and Canadian companies, including Valeant Pharmaceuticals International and its predecessor company, Biovail Corporation. He holds a B.A. in politics from Brandeis University and an M.B.A. from Harvard Business School. Our board of directors believes that Mr. Segal's extensive experience in the biotechnology industry in addition to his corporate governance and executive leadership experience qualify him to serve on our board of directors.

Board Diversity

Our board of directors believes that a diverse board is better able to effectively oversee our management and strategy, and position Repare to deliver long-term value for our shareholders. Our nominating and corporate governance committee considers diversity, including gender, sexual preference and ethnicity, as adding to the overall mix of perspectives of our board of directors as a whole. With the assistance of the nominating and corporate governance committee, our board of directors regularly reviews trends in board composition, including on director diversity.

The table below provides additional diversity information regarding our board of directors:

Board Diversity Matrix								
	As of April 15, 2024 ⁽¹⁾				As of April 15, 2023			
Total Number of Directors	9				9			
	Female	Male	Non-Binary	Did Not Disclose Gender	Female	Male	Non-Binary	Did Not Disclose Gender
Part I: Gender Identity								
Directors	3	4	—	2	2	6	—	1
Part II: Demographic Background								
African American or Black	—	—	—	—	—	—	—	—
Alaskan Native or Native American	—	—	—	—	—	—	—	—
Asian	—	1	—	—	—	1	—	—
Hispanic or Latinx	—	—	—	—	—	—	—	—
Native Hawaiian or Pacific Islander	—	—	—	—	—	—	—	—
White	3	2	—	—	2	4	—	—
Two or More Races or Ethnicities	—	—	—	—	—	—	—	—
LGBTQ+	—	—	—	—	—	—	—	—
Did Not Disclose Demographic Background	—	—	3	—	—	—	2	—

(1) The information is presented as of April 15, 2024, and, therefore, does not include Dr. Stein.

Independence of the Board of Directors

Our common shares are listed on the Nasdaq Global Select Market (“Nasdaq”). As required under Nasdaq listing standards, a majority of the members of our board of directors must qualify as “independent,” as affirmatively determined by our board of directors. Our board of directors consults with our external counsel to ensure that its determinations are consistent with relevant securities and other laws and regulations regarding the definition of “independent,” including those set forth in pertinent listing standards of Nasdaq, as in effect from time to time.

Other than Mr. Segal, our president and chief executive officer, all members of the board of directors are independent, and all members of committees of the board are independent. To determine independence, the board of directors reviewed all relevant identified transactions or relationships between each director, or any of such director’s family members, and us, our senior management and our independent auditors. Our board of directors has affirmatively determined that the following eight current directors and one former director are or were, as applicable, independent directors within the meaning of the applicable Nasdaq listing standards: Dr. Bonita, Mr. Civik, Mr. Foley, Dr. Kulkarni, Dr. Molineaux, Dr. Morrison, Ms. Rhoads, Ms. Schafer and Jerel Davis, Ph.D. Our board of directors has affirmatively determined that Dr. Stein will be an independent director within the meaning of the applicable Nasdaq listing standards upon his appointment to the board. In making this determination, our board of directors found that none of these directors or nominees for director had a material or other disqualifying relationship with Repare. Mr. Segal was determined as not being independent by virtue of his executive leadership role with Repare.

Accordingly, a majority of our directors are independent, as required under applicable Nasdaq rules. In making this determination, our board of directors considered the applicable Nasdaq rules and the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including their beneficial ownership of our share capital.

Board Leadership Structure

Our board of directors has an independent chair, Mr. Civik, who has authority, among other things, to call and preside over meetings of our board of directors, including meetings of the independent directors, to set meeting agendas and to determine materials to be distributed to our board of directors. Accordingly, Mr. Civik has substantial ability to shape the work of our board of directors. We believe that the separation of the positions of chair of our board of directors and Chief Executive Officer reinforces the independence of our board of directors in its oversight of the business and affairs of our company. In addition, we believe that having an independent chair of our board of directors creates an environment that is more conducive to objective evaluation and oversight of management’s performance, increasing management accountability and improving the ability of our board of directors to monitor whether management’s actions are in the best interests of Repare and its shareholders. As a result, we believe that having an independent chair of our board of directors can enhance the effectiveness of our board of directors as a whole.

Role of the Board in Risk Oversight

One of the key functions of our board of directors is active and informed oversight of our risk management process. Our board of directors does not have a standing risk management committee. Rather, the full board retains responsibility for general oversight of risk, and administers its oversight function through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. The board satisfies this responsibility through full reports by each committee chair regarding such committee’s considerations and actions, as well as through regular reports directly from officers responsible for oversight of particular risks. For example, the full board receives an annual update from our Vice President of Information Technology regarding cyber security risks and steps taken to mitigate such risks.

Our audit committee oversees risks related to our financial statements, the financial reporting process, accounting, investments, access to capital, currency risk and hedging programs, information security (including risks related to cyber security) and data protection. It meets periodically with management to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The audit committee also reviews and receives regular briefings concerning information security and technology risks, and monitors ongoing compliance with legal and regulatory requirements.

Our nominating and corporate governance committee reviews the effectiveness of our corporate governance guidelines, including whether they are successful in preventing illegal or improper liability-creating conduct, and monitors compliance with legal, regulatory and ethical requirements. It also reviews and assesses our significant ESG policies and practices, and reviews our risk management procedures for those areas deemed appropriate by the nominating and corporate governance committee.

Our compensation committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking, reviews and discusses at least annually the relationship between our risk management policies and practices and compensation, and evaluates compensation policies and practices that could mitigate potential risks.

The full board and its committees receive regular updates on key enterprise risks throughout the year. From time to time, management also completes company-wide risk assessments, focusing on risks that may directly impact Repare achieving its core business and strategic objectives. The results of such assessments are periodically reviewed by the full board and the applicable committees.

Meetings of Our Board of Directors

Our board of directors met five times during the last fiscal year. Each member of our board of directors attended 75% or more of the aggregate number of meetings of the board and of the committees on which they served, held during the portion of the last fiscal year for which they were a director or committee member.

Director Commitments

The nominating and corporate governance committee and our board of directors believe that all directors should have sufficient time and attention to devote to board duties and to otherwise fulfill the responsibilities required of directors. In assessing whether directors and nominees for director have sufficient time and attention to devote to board duties, the nominating and corporate governance committee considers, among other things, whether directors may be “overboarded”, which refers to the situation where a director serves on an excessive number of boards. Our Corporate Governance Guidelines also require that non-employee directors seek approval from the chair of the board of directors or the lead independent director in advance of accepting an invitation to serve on any additional corporate boards or board committee of another company. Members of the board of directors should advise the chair of the board of directors and consult with the chair of the nominating and corporate governance committee in advance of accepting an invitation to serve on the board of another company and should only do so to the extent such service would not detract from such director’s ability to fulfill their management functions at Repare. The nominating and corporate governance committee and our board of directors believe that each of our directors has demonstrated the ability to devote sufficient time and attention to board duties and to otherwise fulfill the responsibilities required of directors.

Certain proxy advisory firms have adopted overboarding policies, where they will recommend a vote against directors who serve on what the proxy advisory firm believes to be too many boards. Further, certain institutional investors will vote against directors if they believe they are overboarded. These policies are generally intended to address concerns that directors on multiple boards may lack sufficient time to perform their board duties effectively. The nominating and corporate governance committee and the board acknowledge these concerns;

however, the nominating and corporate governance committee believes additional factors should be considered in determining whether a director serving on multiple boards should continue to serve on the board. Among other things, the board believes that consideration should be given to the skills and abilities that a director brings to the board, how a director contributes to the diversity and the overall mix of perspectives and backgrounds on the board, and whether the director dedicates the appropriate time, attention and energy to his or her director duties. The board discusses these considerations generally in connection with its evaluation and assessment process and specifically with both current Board members and director candidates who serve on multiple boards of directors.

Board Refreshment

A thorough and in-depth review is conducted for the directors whose term will expire at the next annual meeting of shareholders. The review assesses each director based on such director's board and committee experience to date and the skills and experiences deemed appropriate to meet the current and future needs of our board of directors and Repare. The review consists of a two-part process to determine if each director should seek another three-year term.

- Members of the nominating and corporate governance committee conduct one-on-one reviews with each director to ensure maximum frankness, confidentiality and respect for the individual. These meetings are designed to gain the directors' perspective on their contributions to the board of directors and whether they believe continuing for another term is appropriate and advisable.
- The nominating and corporate governance committee then meets in executive session, along with the chair of the board of directors, to discuss the results of the reviews and determine the appropriate slate of directors.

Information Regarding Committees of the Board of Directors

Our board of directors has established an audit committee, a compensation committee, a nominating and corporate governance committee and a science and technology committee. Our board of directors may establish other committees to facilitate the management of our business. Our board of directors has adopted written charters for each of our committees, which are available to shareholders on our investor relations website at ir.reparerx.com.

The following table provides meeting information for 2023 and the composition of each of the committees of our board of directors as of the date of this proxy statement:

<u>Name</u>	<u>Audit</u>	<u>Compensation</u>	<u>Nominating and Corporate Governance</u>	<u>Science and Technology</u>
David Bonita, M.D.		X		X
Thomas Civik			X	
Todd Foley	X			
Samarth Kulkarni, Ph.D.		X*		
Susan Molineaux, Ph.D.		X		X
Briggs Morrison, M.D.				X*
Ann D. Rhoads	X*		X	
Carol A. Schafer	X		X*	
Lloyd M. Segal				
Total Meetings in 2023	4	4	4	4

* Committee Chairperson

Mr. Foley will not be standing for re-election at the Annual Meeting and will retire from the board and the audit committee of the board at the expiration of his current term, as of the date of the Annual Meeting. Effective as of the date of the Annual Meeting, Dr. Stein will be appointed to the board and to the science and technology committee, and Mr. Civik will fill the vacancy left by Mr. Foley on the audit committee. Additionally, effective as of the date of the Annual Meeting, Dr. Molineaux will be appointed as chair of the compensation committee in place of Dr. Kulkarni, who will step down as chair and remain a member of the compensation committee

Our board of directors has determined that each member of each committee meets the applicable Nasdaq rules and regulations regarding “independence” and each member is free of any relationship that would impair such member’s individual exercise of independent judgment with regard to us.

Below is a description of each committee of our board of directors.

Audit Committee

The audit committee of our board of directors is currently composed of three directors: Mr. Foley, Ms. Rhoads and Ms. Schafer, with Ms. Rhoads serving as chair of the audit committee. Effective as of the date of the Annual Meeting, Mr. Civik will join the audit committee to fill the vacancy created by Mr. Foley.

Our board of directors has determined that each of these individuals meets the independence requirements of the Sarbanes-Oxley Act of 2002, as amended (the “Sarbanes-Oxley Act”), Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the applicable listing standards of Nasdaq. Each member of our audit committee can read and understand fundamental financial statements in accordance with Nasdaq audit committee requirements. In arriving at this determination, the board has examined each audit committee member’s scope of experience and the nature of their prior and/or current employment. Additionally, our board of directors has determined that each of Ms. Rhoads and Ms. Schafer qualifies as an audit committee financial expert within the meaning of SEC regulations and meets the financial sophistication requirements of the Nasdaq Listing Rules. In making this determination, our board has considered each of Ms. Rhoads’ and Ms. Schafer’s formal education and previous and current experience in financial and accounting roles. Both our independent registered public accounting firm and management periodically meet privately with our audit committee.

The audit committee is responsible for assisting our board of directors in its oversight of the integrity of our consolidated financial statements, the qualifications and independence of our independent auditors and our internal financial and accounting controls. The principal duties and responsibilities of our audit committee include, among other things:

- selecting a qualified firm to serve as the independent registered public accounting firm to audit our financial statements;
- helping to ensure the independence and performance of the independent registered public accounting firm;
- discussing the scope and results of the audit with the independent registered public accounting firm, and reviewing, with management and the independent accountants, our interim and year-end operating results;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviewing our policies on risk assessment and risk management;
- reviewing related party transactions;
- reviewing significant information security matters and concerns, including cybersecurity, data privacy and related regulatory matters and legal compliance;

- reviewing with our independent auditors and management significant issues that arise regarding accounting principles and financial statement presentation and matters concerning the scope, adequacy and effectiveness of our financial controls; and
- approving (or, as permitted, pre-approving) all audit and all permissible non-audit services, other than de minimis non-audit services, to be performed by the independent registered public accounting firm.

We believe that the composition and functioning of our audit committee complies with all applicable requirements of the Sarbanes-Oxley Act, and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Report of the Audit Committee of Our Board of Directors

The material in this report is not “soliciting material,” is not deemed “filed” with the SEC and is not to be incorporated by reference in any filing of Repare under the Securities Act of 1933, as amended (the “Securities Act”), or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

The audit committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2023 with our management. The audit committee has discussed with Ernst & Young LLP the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board (“PCAOB”) and the SEC. The audit committee has also received the written disclosures and the letter from Ernst & Young LLP required by applicable requirements of the PCAOB regarding the independent accountants’ communications with the audit committee concerning independence and has discussed with Ernst & Young LLP the accounting firm’s independence. Based on the foregoing, the audit committee has recommended to our board of directors that the audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, and filed with the SEC.

Audit Committee of Repare Therapeutics Inc.

Ann D. Rhoads (Chair)
Todd Foley
Carol A. Schafer

Compensation Committee

The compensation committee of our board of directors is currently composed of three directors: Dr. Bonita, Dr. Kulkarni and Dr. Molineaux, with Dr. Kulkarni serving as chair of the compensation committee. In addition, Dr. Morrison served as a member of the compensation committee until June 2023. Effective as of the date of the Annual Meeting, Dr. Molineaux will be appointed as chair of the compensation committee in place of Dr. Kulkarni, who will remain a member of the compensation committee.

All members of the compensation committee are independent (as independence is currently defined in Rule 5605(d)(2) of the Nasdaq listing standards). Each of the members of the compensation committee is a non-employee director, as defined in Rule 16b-3 promulgated under the Exchange Act. Our board of directors has determined that each of these individuals is “independent” as defined under the applicable listing standards of Nasdaq, including the standards specific to members of a compensation committee.

The compensation committee oversees our compensation objectives and the compensation of our Chief Executive Officer and other executives. The principal duties and responsibilities of our compensation committee include, among other things:

- reviewing and recommending to our board of directors the compensation of our executive officers, including evaluating the performance of our Chief Executive Officer and, with the Chief Executive Officer’s assistance, that of our other executive officers;

- reviewing and recommending to our board of directors the compensation of our directors;
- reviewing and approving, or recommending that our board of directors approve, the terms of compensatory arrangements with our executive officers;
- administering our equity and non-equity incentive plans;
- reviewing and approving, or recommending that our board of directors approve, incentive compensation and equity plans; and
- reviewing and establishing general policies relating to compensation and benefits of our employees and reviewing our overall compensation philosophy.

We believe that the composition and functioning of our compensation committee complies with all applicable requirements of the Sarbanes-Oxley Act, and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee Processes and Procedures

Typically, the compensation committee meets quarterly and with greater frequency if necessary. The compensation committee also acts periodically by unanimous written consent in lieu of a formal meeting. The agenda for each meeting is usually developed by the chair of the compensation committee, in consultation with our Chief Executive Officer. The compensation committee meets regularly in executive session. However, from time to time, various members of management and other employees, as well as outside advisors or consultants, may be invited by the compensation committee to make presentations, to provide financial or other background information or advice or to otherwise participate in compensation committee meetings. The Chief Executive Officer may not participate in, or be present during, any deliberations or determinations of the compensation committee regarding the Chief Executive Officer's compensation. The charter of the compensation committee grants the compensation committee full access to all books, records, facilities and personnel of Repare. In addition, under the charter, the compensation committee has the authority to obtain, at our expense, advice and assistance from compensation consultants and internal and external legal, accounting or other advisors and other external resources that the compensation committee considers necessary or appropriate in the performance of its duties. The compensation committee has direct responsibility for the oversight of the work of any consultants or advisers engaged for the purpose of advising the compensation committee. In particular, the compensation committee has the sole authority to retain, in its sole discretion, compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant's reasonable fees and other retention terms. Under the charter, the compensation committee may select, or receive advice from, a compensation consultant, legal counsel or other adviser to the compensation committee, other than in-house legal counsel and certain other types of advisers, only after taking into consideration six factors, prescribed by the SEC and Nasdaq, that bear upon the adviser's independence; however, there is no requirement that any adviser be independent.

Generally, the compensation committee's process comprises two related elements: the determination of compensation levels and the establishment of performance objectives for the current year. For executives other than our Chief Executive Officer, the compensation committee solicits and considers evaluations and recommendations submitted to the compensation committee by our Chief Executive Officer. The evaluation of our Chief Executive Officer's performance is conducted by the compensation committee, which reviews the evaluation from the compensation consultant and determines any adjustments to the Chief Executive Officer's compensation as well as awards to be granted. The compensation committee then presents such proposed adjustments and awards to our board of directors for approval. For all executives and directors as part of its deliberations, the compensation committee may review and consider, as appropriate, materials such as financial reports and projections, operational data, executive and director share ownership information, company share performance data, analyses of historical executive compensation levels and current company-wide compensation

levels and recommendations of the compensation consultant, including analyses of executive and director compensation paid at other companies identified by the consultant.

See “Executive Compensation—Compensation Objectives and Philosophy” for additional information.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee of our board of directors is currently composed of three directors: Mr. Civik, Ms. Rhoads and Ms. Schafer, with Ms. Schafer serving as chair of the nominating and corporate governance committee. In addition, Dr. Davis served as a member of the nominating and corporate governance committee until his resignation from our board of directors in June 2023. All members of the nominating and corporate governance committee are independent (as independence is currently defined in Rule 5605(a)(2) of the Nasdaq listing standards).

The nominating and corporate governance committee oversees our corporate governance policies and evaluates the composition of our board of directors and candidates for director. The nominating and corporate governance committee’s responsibilities include, among other things:

- developing and recommending to our board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by shareholders;
- evaluating the performance of our board of directors and of individual directors;
- reviewing the composition of our board of directors to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- considering and making recommendations to our board of directors regarding the composition of our board of directors and its committees;
- identifying individuals qualified to become members of our board of directors;
- considering and assessing the independence of the members of our board of directors;
- considering questions of possible conflicts of interest of directors as such questions arise;
- developing and reviewing with the Chief Executive Officer the succession plans for our executive officers;
- reviewing developments in corporate governance practices;
- developing and recommending to the board a set of corporate governance policies and principles, including a code of business conduct and ethics;
- evaluating the adequacy of our corporate governance practices and reporting;
- reviewing and overseeing the company’s environmental, social and governance (“ESG”) strategy, initiatives, and policies, including matters related to environmental, health and safety, diversity and inclusion, and ethics and compliance; and
- overseeing an annual evaluation of the board’s performance.

We believe that the composition and functioning of our nominating and corporate governance committee complies with all applicable requirements of the Sarbanes-Oxley Act, and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

The nominating and corporate governance committee believes that candidates for director should have certain minimum qualifications, including the ability to read and understand basic financial statements,

understanding our industry and having the highest personal integrity and ethics. The nominating and corporate governance committee also intends to consider such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, having sufficient time to devote to the affairs of Repare, demonstrated excellence in such candidate's field, having the ability to exercise sound business judgment, experience as a board member or executive officer of other publicly-held companies and having the commitment to rigorously represent the long-term interests of our shareholders. An acceptable candidate may not fully satisfy all of the criteria, but is expected to satisfy nearly all of them. Candidates for director nominees are reviewed in the context of the current composition of our board of directors, the operating requirements of the Company and the long-term interests of our shareholders. In conducting this assessment, the nominating and corporate governance committee typically considers diversity (including gender, sexual preference, disability, age, ethnicity, business experience, industry experience, functional expertise, stakeholder expectations, culture and geography), skills and such other factors as it deems appropriate, given the current needs of our board of directors, to maintain a balance of knowledge, experience and capability.

The nominating and corporate governance committee appreciates the value of thoughtful board refreshment, and regularly identifies and considers qualities, skills and other director attributes that would enhance the composition of our board of directors. In the case of incumbent directors whose terms of office are set to expire, the nominating and corporate governance committee reviews these directors' overall service to the Company during their terms, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair the directors' independence. The nominating and corporate governance committee also takes into account the results of our board of directors' self-evaluation, conducted annually on a group and individual basis and every three years, conducted with an outside consultant. In the case of new director candidates, the nominating and corporate governance committee also determines whether the nominee is independent for Nasdaq purposes, which determination is based upon applicable Nasdaq listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The nominating and corporate governance committee then uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. The nominating and corporate governance committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of our board of directors. The nominating and corporate governance committee meets to discuss and consider the candidates' qualifications and then selects a nominee for recommendation to our board of directors by majority vote.

The nominating and corporate governance committee will consider director candidates recommended by shareholders. The nominating and corporate governance committee does not intend to alter the manner in which it evaluates candidates, including the minimum criteria set forth above, based on whether or not the candidate was recommended by a shareholder. Nominations for director (made other than pursuant to a shareholder proposal) for inclusion in next year's proxy materials must satisfy the criteria and procedures prescribed under the QBCA and our Bylaws. To be timely, a shareholder's notice must be made:

- in the case of an annual meeting of shareholders (including an annual and special meeting), not less than 30 nor more than 60 days prior to the date of the annual meeting of shareholders; provided, however, that in the event that the annual meeting of shareholders is to be held on a date that is less than 50 days after the Notice Date on which the first public announcement of the date of the annual meeting is made, notice by the nominating shareholder may be made not later than the close of business on the tenth day following the Notice Date; and
- in the case of a special meeting (which is not also an annual meeting) of shareholders called for the purpose of electing directors (whether or not also called for other purposes), not later than the close of business on the 15th day following the day on which the first public announcement of the date of the meeting was made.

Our Bylaws also prescribe the proper written form for a shareholder's notice as well as additional requirements in connection with nominations. Any such submission must be accompanied by the written consent

of the proposed nominee to be named as a nominee and to serve as a director if elected. Subject to our board of directors' discretion as provided in our Bylaws, shareholders who fail to comply with the advance notice requirements and the other requirements set out in the Bylaws, would not be entitled to make nominations for directors at an annual or special meeting of shareholders.

Science and Technology Committee

The science and technology committee of our board of directors is currently composed of three directors: Dr. Bonita, Dr. Molineaux and Dr. Morrison, with Dr. Morrison serving as chair of the science and technology committee. Effective as of the date of the Annual Meeting, Dr. Stein will join the science and technology committee. In addition, Dr. Davis served as a member of the science and technology committee until his resignation from our board of directors in June 2023. The science and technology committee assists and advises the board of directors with respect to scientific research and development matters. The science and technology committee's responsibilities include, among other things:

- providing recommendations to the board of directors and management on the structure and optimization of our research and development portfolio;
- providing recommendations to the board of directors and management on the path-to-clinic and path-to-market strategies for our programs;
- providing recommendations to the board of directors and management on potential buy-side business development opportunities from a scientific, medical and regulatory perspective;
- assisting management in screening and technically evaluating buy-side business development opportunities from a scientific, medical and regulatory perspective; and
- supporting management in strategizing, messaging and networking with respect to sell-side business development opportunities from a scientific and technical perspective.

Shareholder Communications with Our Board of Directors

Our board of directors has adopted a formal process by which shareholders may communicate with the board or any of its directors. Shareholders who wish to communicate with our board of directors may do so by sending written communications addressed to our Secretary at Repare Therapeutics Inc., 7171 Frederick-Banting, Building 2, Suite 270, St-Laurent, Québec, Canada H4S 1Z9, Attn: Secretary. Our Secretary will review each communication and will forward such communication to the board of directors or any of its directors to whom the communication is addressed, unless the communication contains advertisements or solicitations or is unduly hostile, threatening or similarly inappropriate, in which case the Secretary shall discard the communication.

Board and Board Member Self-Assessment

The nominating and corporate governance committee believes that a strong director assessment process and periodic board refreshment enhances the effectiveness of our board of directors and is an essential element of sound corporate governance. Director assessment is conducted on an annual basis at both the full board and individual director level, led by the direction of the nominating and corporate governance committee. The nominating and corporate governance committee oversees an annual board member self-assessment, which elicits each director's opinions on the overall effectiveness of the board of directors and its committees, the information the board of directors receives, the conduct of board meetings, communication among directors and management, the oversight of key business risks and environmental, social and governance issues, board composition, and any other matters that any director wishes to raise. The results are summarized in an anonymous matter and reviewed by the nominating and corporate governance committee and key findings and observations are reported to the full board of directors for discussion and action, if appropriate. This process has resulted in several meaningful improvements to the effectiveness of meetings of our board of directors and timing and means of providing information to the board of directors.

Director Orientation and Continuing Education

We do not currently intend to adopt a formal orientation and continuing education program for new directors. However, it is expected that all new directors will be given training which will include background material on our policies and procedures, written information about the duties and obligations of members of our board of directors, our business and operations, as well as documents from recent meetings of our board of directors. New directors will also visit our facilities and have access to management to discuss the activities of Repare and the organization. Directors are encouraged to be involved in continuing director education on an ongoing basis, and we intend to pay all reasonable expenses related to continuing director education.

Environmental, Social and Governance

A continued area of focus for our board of directors has been our ESG-related practices which are integrated into our business strategy and planning, including human capital management, safety and ethics and compliance. We are committed to increasing our transparency and further identifying issues that may have a material effect on corporate strategy, risks, opportunities or performance.

Human Capital Management

As of February 16, 2024, we had 179 full-time employees, including 66 who hold an M.D. or Ph.D. degree. Of these full-time employees, 143 were primarily engaged in research and development activities and 36 were primarily engaged in management or general and administrative activities. We rely on highly skilled and innovative professionals to conduct our research, development and business activities. Our ability to attract, retain and motivate employees is critical to the continued success of our business and it is our goal to offer competitive compensation and benefits, a collaborative and inclusive work environment, ongoing skills development initiatives, attractive career advancement opportunities, and a culture that rewards innovation and exceptional execution.

Commitment to Culture, Competitive Compensation, Employee Benefits and Well-Being

We are dedicated to building a talented team and strive to offer competitive compensation packages. Our total rewards compensation package includes market-competitive base salary, annual equity and cash incentive plans, comprehensive healthcare and insurance benefits, retirement benefits, employee share purchase plan and paid time off. The principal purposes of these employee benefits are to attract, retain and reward top talent in order to support our business objectives, assist in the achievement of our strategic goals and align the interests of employees with the interests of our shareholders. Beyond compensation and benefits, we believe that continued growth and development are essential to the professional well-being of our team. We seek to develop our employee talent within the organization through access to training, continuous learning programs, lunch & learn sessions, tuition reimbursement and other development initiatives. As our organization and capabilities grow, we aim to ensure we have provided our team members with the guidance and resources they need to develop as professionals and to support our business. During the past three years, our employee turnover has remained consistently below average for the life sciences industry generally. We continually assess employee turnover, recruitment initiatives, employee engagement, compensation and benefits programs and other matters relevant to human capital management, and we review results with the board on a periodic basis.

Health and Safety

We are committed to strict policies and procedures to maintain a safe working environment. The health and safety of our employees, patients and communities are of primary concern. Many of our employees work in our laboratory facilities in Montreal. All laboratory personnel are regularly trained in chemical safety, the use of personal protective equipment and other relevant laboratory safety topics. We also extend this training to office staff and others who support our work in the labs. We have also established a health and safety committee to oversee the working conditions in our laboratory environment and conduct regular safety inspections.

Ethics and Compliance

Our Code of Business Conduct and Ethics outlines our commitment to ethical business practices and applies to all of our employees, officers and directors. Annual training on our Code of Business Conduct and Ethics is provided to all employees.

Code of Business Conduct and Ethics

Our board of directors has adopted the Repare Therapeutics Inc. Code of Business Conduct and Ethics that applies to all officers, directors and employees. This includes our principal executive officer, principal financial officer and principal accounting officer or controller or persons performing similar functions. The nominating and corporate governance committee is responsible for overseeing the Code of Business Conduct and Ethics and must approve any waivers of the Code of Business Conduct and Ethics for our employees, executive officers and directors. The Code of Business Conduct and Ethics is available on our website at ir.reparerx.com/corporate-governance/documents-and-charters. If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the Code of Business Conduct and Ethics to the principal executive officer, principal financial officer and principal accounting officer or controller or persons performing similar functions, we will promptly disclose the nature of the amendment or waiver on our website.

In accordance with the QBCA, directors and officers must disclose the nature and value of any interest he or she has in a contract or transaction, whether made or proposed (including related negotiations), to which we are a party. Such “interest” means any financial stake in a contract or transaction that may reasonably be considered likely to influence decision-making. Such disclosure is also required for any contract of transaction to which we are a party and (i) an associate of the director or officer; (ii) a group of which the director or officer is a director or officer; or (iii) a group in which the director or officer or an associate of the director or officer has an interest, whether or not such contract or transaction requires approval by our board of directors. Subject to certain limited exceptions under the QBCA, no director may vote on any resolution to approve, amend or terminate a contract or transaction which is subject to such disclosure requirement.

Supplier Code of Conduct

We are committed to maintaining the highest business and personal ethical standards and to reflect our Repare values. We expect our suppliers and partners to honor the same values and commitments. Our Supplier Code of Conduct conveys our minimum expectations for our suppliers, and their respective subcontracts and suppliers, to: (i) operate in full compliance with all laws, rules, and regulations; (ii) conduct business ethically and act with integrity; (iii) uphold the human rights of workers and to treat workers with respect and dignity, encourage inclusion and diversity, and promote equal opportunity; (iv) provide a safe and healthy working environment; and (v) operate as responsible stewards of the environment and in a manner that actively protects the environment. Our Supplier Code of Conduct can be found on our website at ir.reparerx.com/corporate-governance/documents-and-charters.

Anti-Hedging and Anti-Pledging Policies

Our board of directors has adopted an insider trading policy, which prohibits our employees, directors and certain consultants from engaging in hedging or monetization transactions with respect to our common shares, including through the use of financial instruments such as prepaid variable forwards, equity swaps, collars, and exchange funds. In addition, our insider trading policy prohibits trading in derivative securities related to our common shares, which include publicly traded call and put options, engaging in short selling of our common shares, purchasing our common shares on margin or holding it in a margin account and pledging our shares as collateral for a loan.

Position Description of the Chief Executive Officer

We do not intend to adopt a written position description for our Chief Executive Officer. The scope and duties of the Chief Executive Officer include, among other things, strategic planning, corporate and business development, fundraising and value creation. The Chief Executive Officer is subject to the oversight of our board of directors and a written position description for such position may be developed in the future.

Policies Regarding the Representation of Women on the Board

Under our corporate governance guidelines, the nominating and corporate governance committee must take into account a variety of criteria, including gender, when identifying, reviewing and evaluating candidates to serve on our board of directors. Accordingly, we do not intend to adopt a formal policy for the representation and nomination of women on our board of directors.

Consideration Given to the Representation of Women in Executive Officer Appointments

We do not explicitly consider the level of female representation in executive officer positions when making executive officer appointments, as our board of directors is of the view that such an analysis is not required in order to retain the best candidates for available openings. We will, however, be mindful of the benefit of diversity of our executive officers and the need to maximize their effectiveness and respective decision-making abilities. Accordingly, in searches for new candidates, we will consider the level of female representation and diversity of its executive officers and this will be one of several factors used in the search process. This will be achieved through continuously monitoring the level of female representation and, where appropriate, recruiting qualified female candidates as part of our overall recruitment and selection process to fill openings, as the need arises, through vacancies, growth or otherwise.

Targets Regarding the Representation of Women on the Board and in Executive Officer Positions

We have not adopted a target regarding women on our board of directors, or regarding women in executive officer positions, as the directors are of the view that such an analysis is not required in order to retain the best candidates for available openings.

Number of Women on the Board and in Executive Officer Positions

Of our nine directors to hold office as of the date of this proxy statement, three (33%) are women. Of our four executive officers, one (25%) is a woman.

PROPOSAL 2

APPROVAL, ON A NON-BINDING, ADVISORY BASIS, OF THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

In accordance with the requirements of Section 14A of the Exchange Act, we are providing our shareholders the opportunity to vote to approve, on a non-binding, advisory basis, the compensation of our named executive officers (as disclosed under “Executive Compensation—Compensation Discussion and Analysis,” the tables included under the heading “Executive Compensation” and the accompanying narrative).

You are encouraged to review the section titled “Executive Compensation” in this proxy statement, which provides a comprehensive review of our executive compensation program and its elements, objectives and rationale. The vote on this resolution is not intended to address any specific element of compensation, rather the vote relates to the compensation of our named executive officers in its totality, as described in this proxy statement in accordance with the compensation disclosure rules of the SEC.

Accordingly, our board of directors is asking the shareholders to indicate their support for the compensation of our named executive officers as described in this proxy statement by casting a non-binding advisory vote “FOR” the following resolution:

“RESOLVED, that the shareholders of Repare Therapeutics Inc. (the “Company”) hereby approve, on a non-binding, advisory basis, the compensation of the Company’s named executive officers, as disclosed in the Company’s proxy statement for the 2024 Annual Meeting of Shareholders, pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the compensation tables and the accompanying narrative.”

Advisory approval of this proposal requires the vote of the holders of a majority of the shares present by virtual attendance or represented by proxy and entitled to vote at the annual meeting.

Because the vote is advisory, it is not binding on the board of directors or Repare. Nevertheless, the views expressed by the shareholders, whether through this vote or otherwise, are important to management and the board of directors and, accordingly, the board of directors and the compensation committee intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE APPROVAL OF THE NON-BINDING ADVISORY VOTE ON EXECUTIVE COMPENSATION

EXECUTIVE OFFICERS

The following table sets forth, for our executive officers, their ages and position held with us as of the date of this proxy statement:

<u>NAME</u>	<u>AGE</u>	<u>POSITION(S)</u>
Lloyd M. Segal	60	President, Chief Executive Officer and Director
Steve Forte	45	Executive Vice President, Chief Financial Officer
Maria Koehler, M.D., Ph.D.	67	Executive Vice President, Chief Medical Officer
Michael Zinda, Ph.D.	53	Executive Vice President, Chief Scientific Officer

Lloyd M. Segal. Biographical information for Lloyd M. Segal is included above under the caption “Information Regarding Director Nominees and Current Directors— Directors Continuing in Office Until the 2026 Annual Meeting of Shareholders.”

Steve Forte has served as our Executive Vice President, Chief Financial Officer since October 2019. Prior to joining us, he served as Chief Financial Officer of Clementia Pharmaceuticals Inc. from August 2018 through June 2019, during which time Clementia was acquired by Ipsen S.A. From September 2015 to August 2018, Mr. Forte served as Chief Financial Officer of Thinking Capital Financial Corporation, a Canadian financial technology firm, where he ultimately led the firm through a sale to Purpose Investments. From September 2014 to September 2015, he served as Executive Director of Finance of CST Canada Co. From 2005 to 2014, Mr. Forte held positions of increasing responsibility at Aptalis Pharma Inc., including most recently holding the position of Vice President, Financial Reporting where he was responsible for the overall corporate controllership function of the company. Mr. Forte received his Bachelor of Commerce in accountancy from Concordia University and is a Certified Professional Accountant in the Province of Québec and a Certified Information Systems Auditor (non-practicing) with ISACA.

Maria Koehler, M.D., Ph.D. has served as our Executive Vice President, Chief Medical Officer since May 2019. Prior to joining us, from September 2017 to April 2019, Dr. Koehler served as the Chief Medical Officer of Bicycle Therapeutics Limited. From March 2009 to September 2017, Dr. Koehler served as Vice President of Strategy, Innovation and Collaborations for the Oncology Business Unit at Pfizer Inc. Prior to joining Pfizer, Dr. Koehler was the group leader for the Medicine Development Center of GlaxoSmithKline Oncology. Prior to that, Dr. Koehler was a Senior Medical Director for oncology research and development at AstraZeneca plc. She has also served as the clinical director of Bone Marrow Transplantation at University Hospital in Pittsburgh as well as the director of the Bone Marrow Transplant Program and associate professor at St. Christopher’s Hospital in Philadelphia. Dr. Koehler currently serves on the board of directors of Ikena Oncology, Inc. and Abdera Therapeutics Inc., and previously served on the board of directors of Celyad Oncology SA. and Silverback Therapeutics Inc. Dr. Koehler is a board-certified hematology/oncology physician. She received her M.D. and Ph.D. from Silesian School of Medicine in Katowice, Poland.

Michael Zinda, Ph.D. has served as our Executive Vice President, Chief Scientific Officer since May 2019 and previously served as Executive Vice President, Head of Research and Development of our U.S. subsidiary, Repare Therapeutics USA Inc., from June 2017 to May 2019. Prior to joining us, Dr. Zinda spent 16 years at AstraZeneca from 2001 to May 2017, where he obtained the position of Executive Director, Head of Cancer Bioscience. In this role, Dr. Zinda served on the global science leadership team, oncology research board and the Acerta research and early development teams accountable for strategy, key collaborations/partnerships and delivery of an innovative portfolio of patient-centric drug discovery programs. Dr. Zinda holds a B.Sc. in biology from Minnesota State University Moorhead and a Ph.D. in molecular biology from Vanderbilt University. He received his post-doctoral training at Princeton University and Eli Lilly & Company.

EXECUTIVE COMPENSATION

Through the fiscal year ended December 31, 2023, we were a “smaller reporting company” under Item 10 of Regulation S-K promulgated under the Exchange Act, at which time we qualified as an “accelerated filer” under the Exchange Act. Pursuant to applicable SEC rules, we have elected to continue to rely on the scaled disclosure requirements for smaller reporting companies through the filing of our Annual Report on Form 10-K, including the information in this proxy statement required by Part III of Form 10-K and incorporated by reference therein. Accordingly, the following compensation disclosure is intended to comply with the requirements applicable to smaller reporting companies. Although the rules allow us to provide less detail about its executive compensation program, the compensation committee is committed to providing the information necessary to help shareholders understand its executive compensation-related decisions. Accordingly, this section includes supplemental narratives that describe the 2023 executive compensation program for the following individuals, collectively referred to herein in this proxy statement as our “named executive officers”:

- Lloyd M. Segal, our President and Chief Executive Officer;
- Maria Koehler, M.D., Ph.D., our Executive Vice President, Chief Medical Officer; and
- Steve Forte, our Executive Vice President, Chief Financial Officer.

Overview of Executive Compensation Program

The board of directors and the compensation committee are responsible for establishing, implementing and continually monitoring adherence with our compensation philosophy and executive compensation programs. The board of directors and the compensation committee strive to ensure that the total compensation paid to our executive officers is fair, reasonable and competitive. Generally, the types of compensation and benefits provided to our executive officers, including the named executive officers, are similar to those provided to executive officers at comparable companies in similarly situated positions, which allows us to attract and retain talented executives.

Compensation Objectives and Philosophy

Our compensation programs are designed to attract and retain qualified and talented executives, motivate such executives to achieve business goals and reward them for short- and long-term performance with a simple and clear compensation structure. To achieve this objective, the compensation committee structures our executives’ compensation with a number of key elements, each with its own focus and purpose. We intend for total compensation, which we define as base salary, short-term incentive cash compensation, equity compensation and benefits to be competitive in the biopharmaceutical marketplace in which we compete for talent in order to help us achieve our short- and long-term financial and operational goals. Our board of directors reviews compensation annually for our executives. In setting executive base salaries and bonuses and granting equity incentive awards, we consider the following:

- Compensation for comparable positions in the biopharmaceutical market;
- Historical compensation levels of our executives;
- Individual performance as compared to our expectations and objectives; and
- Our desire to motivate our employees to achieve short- and long-term results that are in the best interests of our shareholders and a long-term commitment to Repare.

Setting Executive Compensation

Role of the Board of Directors, the Compensation Committee and Management

Our board of directors has historically determined the compensation of our executives, upon recommendation of the compensation committee. The compensation committee has reviewed and recommended

to the board for approval the compensation and other terms of employment of our chief executive officer, and evaluates the chief executive officer's performance in light of relevant corporate goals and objectives. Our Chief Executive Officer has typically discussed his recommendations for all other executives (other than himself) with the compensation committee and the board. The board, based on the compensation committee's recommendation, has final approval over all compensation decisions for our named executive officers.

Role of the Compensation Consultant

During 2023, the compensation committee retained Aon's Human Capital Solutions practice, a division of Aon plc ("Aon") as its compensation consultant. The compensation consultant reports directly to the compensation committee and provided no advisory services to management in 2023. The compensation consultant's advisory services primarily include:

- assessing the executive team's base salaries, short-term incentive opportunities, target total cash and long-term incentives against the biopharmaceutical market and the peer group;
- reviewing the current unvested equity ownership levels and wealth creation opportunities of our executive team;
- assessing our aggregate equity use both in terms of annual equity spend as well as cumulative equity delivery; and
- developing a comparative peer group of companies for use in establishing 2024 executive compensation.

The compensation committee has sole authority to hire the compensation consultant, approve its compensation, determine the nature and scope of its services, evaluate its performance, and terminate and replace (or supplement) its engagement with an alternative consultant.

The compensation committee has assessed the independence of Aon pursuant to the listing standards of the Nasdaq Stock Market and SEC rules and concluded that no conflict of interest exists that would prevent the compensation consultant from serving as an independent consultant to the compensation committee.

Compensation Peer Group

As our compensation consultant, Aon developed and analyzed competitive compensation levels relative to the peer group that the compensation committee adopted for fiscal 2022. The compensation committee used the same peer group for fiscal 2023, except that eight companies were dropped from the peer group as five ceased to be publicly traded and three no longer met the selection criteria. These were replaced with eight companies that met the selection criteria in terms of financial profile and product/platform focus. Aon developed recommendations that were presented to the compensation committee for its consideration after analyzing executive compensation paid at other companies identified by the consultant and broader survey data for size-appropriate companies in the biopharmaceutical industry, such as the Radford Global Life Sciences Survey. The criteria used to determine the composition of the peer group were the following:

- companies competing in the same talent market;
- companies operating in the bio/pharmaceutical industry with similar business and financial profiles; and
- companies of similar size, measured by R&D expenditures, number of employees and market capitalization.

The peer group, supplemented by other sources of competitive pay information, were an important input in establishing compensation levels and structure for fiscal 2023. We target total cash compensation at the market median.

The 22 companies in our 2023 peer group are listed below:

2023 Peer Group

Alaunos Therapeutics
 ALX Oncology
 Aura Biosciences
 Beam Therapeutics
 Editas Medicine
 Foghorn Therapeutics
 Forma Therapeutics
 IDEAYA Biosciences
 Inhibrx
 Iteos Therapeutics
 Keros Therapeutics

Kura Oncology
 Mersana Therapeutics
 Poseida Therapeutics
 RAPT Therapeutics
 Replimune Group
 Revolution Medicines
 SpringWorks Therapeutics
 Stoke Therapeutics
 Tango Therapeutics
 Y-mAbs Therapeutics
 Zentalis Pharmaceuticals

Results of 2023 Shareholder Advisory Vote on Named Executive Officer Compensation

We last held a non-binding advisory vote on executive compensation during the 2023 Annual Meeting of Shareholders. At that meeting, shareholders were asked to approve, on an advisory basis, the 2022 compensation for our named executive officers as reported in our 2023 proxy statement. This say-on-pay proposal was approved by over 99.9% of the shares present at the meeting or by proxy and entitled to vote on the matter. The compensation committee viewed the results of the advisory vote as demonstrating broad shareholder support for our current executive compensation program. Given the results of the shareholder advisory vote, and the compensation committee’s ongoing review of our compensation programs, the compensation committee believes that our existing compensation program effectively aligns the interests of the named executive officers with our long-term goals. While the shareholder vote on compensation is advisory in nature, the board and the compensation committee will carefully consider the results of any such vote in future compensation decisions.

Elements of Executive Compensation

The principal components of compensation for our named executive officers are: (1) annual base salary; (2) short-term incentive compensation; and (3) equity-based incentive awards.

A significant portion of target executive pay is “at risk” or based on meeting performance goals to align executive pay with our long-term goals and the interests of our shareholders. The following charts demonstrate the 2023 pay mix for our Chief Executive Officer and the average pay mix for the other named executive offers as a group.



The compensation of our executive officers during 2023 is consistent with significant business achievements and individual performance over the course of the year. We made substantial progress in 2023 in advancing the four programs in our clinical portfolio, as described in our Annual Report on Form 10-K for the year ended December 31, 2023.

Annual Base Salary

The annual base salaries of our named executive officers are generally determined, approved and reviewed periodically by our compensation committee and, with respect to our Chief Executive Officer, our board of directors, based on the recommendation of the compensation committee, to compensate our named executive officers for the satisfactory performance of duties to Repare. Annual base salaries are intended to provide a fixed component of compensation to our named executive officers, reflecting their skill sets, experience, roles and responsibilities. Base salaries for our named executive officers generally have been positioned at the market median level to attract and retain individuals with superior executive talent. Individual pay levels may be above or below the market median based on the experience the individual brings to the table, including their scope of position and performance, and considering internal pay equity.

The following table sets forth the annual base salaries for each of our named executive officers for the periods presented:

Named Executive Officer	2023 Base Salary (S)	2022 Base Salary (S)	Change from 2022 (%)
Lloyd M. Segal	615,000	592,000	4
Maria Koehler, M.D., Ph.D.	493,500	474,600	4
Steve Forte	452,000	424,400	7

For 2023, our board of directors and the compensation committee, as applicable, approved increases in base salary of 4% to 7% based on a review of market data, individual performance and experience and recommendations from Aon, as well as general cost of living increases. These increases were effective as of January 1, 2023.

Non Equity Incentive Plan Compensation

Under the terms of their employment agreements, our named executive officers are eligible to receive discretionary annual bonuses of up to a specified percentage of each executive's gross base salary based on individual performance, company performance against corporate goals or as otherwise determined appropriate by the compensation committee. Target awards are set at the market median with actual awards higher or lower based on performance. Corporate performance goals vary from year to year, and may be based on criteria such as the progress of our research and clinical development programs, financial metrics and strategic collaborations that support our plans. Based on performance against these goals, the compensation committee determines the cash bonus earned by our named executive officers.

The compensation committee determines whether any weighting will be applied to each of the goals that comprise the established corporate performance goals. The compensation committee applies a performance weighting to each goal relative to our overall performance to reflect the prioritization of key business objectives. Additionally, a weighting between corporate performance and individual performance is also applied for each

named executive officer to reflect the level of impact such individual would be able to make on the overall corporate performance. The relative weighting for corporate versus individual performance was as follows for 2023.

<u>Named Executive Officer</u>	<u>Weighting of Corporate Goals (%)</u>	<u>Weighting of Individual Performance Assessment (%)</u>
Lloyd M. Segal	100	—
Maria Koehler, M.D., Ph.D.	75	25
Steve Forte	75	25

The compensation committee and our board of directors review our achievement of the corporate goals in their totality, considering our overall performance for the year and come to a general overall conclusion as to whether the corporate goals were met, and whether there were any other extraordinary factors that should be considered in determining the amount of bonus earned for the year. The board believes that maintaining discretion to evaluate corporate performance at the close of the year based on the totality of the circumstances, and the discretion to award or fail to award bonus compensation without reliance on rote calculations under set formulas, is appropriate in responsibly discharging its duties.

Our corporate accomplishments in 2023 were a direct product of the performance of our named executive officers, and thus, their individual contributions were an important factor in determining 2023 compensation. Following an assessment of our corporate accomplishments to the 2023 corporate goals, the compensation committee recommended, and our board approved, a corporate goal achievement percentage of 90% overall and an individual performance assessment of 100% for Dr. Koehler and Mr. Forte. Mr. Segal's bonus opportunity does not include an individual performance assessment component; rather, his target bonus is solely reflective of the corporate goal achievement percentage.

<u>Named Executive Officer</u>	<u>2023 Target (% of Base Salary)</u>	<u>Actual 2023 Award (\$)</u>	<u>Actual 2023 Award (% of Base Salary)</u>
Lloyd M. Segal	55	304,425	50
Maria Koehler, M.D., Ph.D.	40	182,595	37
Steve Forte	40	167,240	37

Equity-Based Incentive Awards

We grant equity-based incentive awards to our named executive officers from time to time, and these awards are designed to align the interests of our executive officers with those of our shareholders.

We have historically used stock options as an incentive for long-term compensation to our executive officers because they allow our executive officers to profit only if our share price increases above the exercise price established on the date of grant. All options are granted with an exercise price that is no less than the fair market value of our common shares on the date of grant of such award, determined based on the volume weighted average trading price of our common shares for the five trading days prior to the date of grant. Our stock option awards generally vest over a four-year period and may be subject to acceleration of vesting and exercisability under certain termination and change in control events. Our stock option awards have a ten-year term.

As of January 2023, we have also used restricted stock unit awards ("RSUs") as an incentive for long-term compensation to our executive officers. RSUs are less dilutive to our shareholders as fewer common shares are granted to achieve an equivalent value relative to stock option awards. Furthermore, the compensation committee believes RSUs are an effective retention tool that maintain value even in cases where the share price is trading

lower than the initial grant price. Our RSU awards generally vest in equal annual increments over a three-year period and may be subject to acceleration of vesting and exercisability under certain termination and change in control events. Vesting of equity awards is generally tied to each officer's continuous service with us and serves as an additional retention measure.

In January 2023, the compensation committee and our board of directors, as applicable, approved grants of options, with an exercise price of \$12.42 per share, and RSUs to our named executive officers as set forth in the following table.

<u>Named Executive Officer</u>	<u>2023 Option Grant (#)</u>	<u>2023 RSU Grant (#)</u>
Lloyd M. Segal	344,200	78,550
Maria Koehler, M.D., Ph.D.	119,250	26,450
Steve Forte	111,050	24,530

These option awards vest over a four-year period, with 25% of the shares subject to the award vesting in January 2024, with the remainder of the award vesting monthly in equal installments over the following 36 months such that the award will vest in full in January 2027, subject to the executive's continuous service with us as of each vesting date. The RSU awards vest over a three-year period, with one-third of the shares subject to the award vesting on the first, second and third anniversaries of January 2023, such that the award will vest in full in January 2026, subject to the executive's continuous service with us as of each such vesting date.

Health and Welfare and Retirement Benefits

Our named executive officers are eligible to participate in benefits available generally to salaried employees, such as participation in our 401(k) Plan in the United States and our retirement plan in Canada, medical, dental, vision coverage, short-term disability insurance, long-term disability insurance, group life insurance, health spending account, paid time off, holiday, and the Employee Share Purchase Plan, in each case on the same basis as our other employees.

We offer our employees in the United States the ability to participate in a 401(k) plan and we offered our employees in Canada the ability to participate in a retirement plan. We make non-matching employer contributions into both of these plans on behalf of participants equal to 3% of their base salary up to statutorily prescribed maximums.

The compensation committee periodically reviews the levels of benefits provided to executive officers to ensure that they remain reasonable and consistent with its compensation philosophy. Our board of directors may elect to adopt qualified or nonqualified benefit plans in the future, if it determines that doing so is in our best interests.

Perquisites

We do not provide significant perquisites or personal benefits to our named executive officers.

Employment Agreements and Severance Benefits

We provide our named executive officers with certain severance protections in their employment agreements in order to attract and retain an appropriate caliber of talent for such positions. Our employment agreements with the named executive officers and the severance provisions set forth therein are summarized below under "—Employment Arrangements with our Named Executive Officers" and "—Potential Payments and Benefits upon Termination or Change in Control." Our compensation committee intends to periodically review the level of the benefits in these agreements.

Clawback Policy

Our board of directors has adopted an Incentive Compensation Recoupment Policy that is compliant with the rules promulgated by Nasdaq. The policy applies to incentive-based compensation received by covered

executive officers that was granted, earned or vested based wholly or in part upon the attainment of a financial reporting measure, including our stock price or total stockholder return. Under this policy, in the event that either our board of directors or a court, regulator or other legally authorized body determines that we are required to prepare an accounting restatement due to material noncompliance with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period, then we are required to recoup reasonably promptly any incentive-based compensation that exceeds the amount of compensation that would have been received had such amount been determined based on the accounting restatement. The policy applies to compensation earned during the three completed fiscal years immediately preceding the date it is determined that an accounting restatement is required (excluding fiscal years completed prior to the effective date of the policy), and grants our compensation committee broad flexibility in recouping recoverable incentive compensation.

Compensation Risk Assessment

The compensation committee has reviewed our compensation policies and practices, in consultation with the compensation consultant and outside counsel, to assess whether they encourage employees to take inappropriate risks. After conducting this review of compensation-related risk, the compensation committee has concluded that our compensation policies and practices are not reasonably likely to have a material adverse effect on us.

Post-Fiscal Year-End 2023 Actions

Equity Awards

On January 29, 2024, the compensation committee and our board of directors, as applicable, approved grants of option and RSU awards under our 2020 Plan to our named executive officers, effective as of March 1, 2024, the second business day after publication of our Annual Report on Form 10-K, including (i) 407,000 options to purchase common shares at an exercise price of \$6.95 per share, including 237,000 options to Mr. Segal, 85,000 options to Dr. Koehler and 85,000 options to Mr. Forte and (ii) 68,000 RSUs, including 40,000 RSUs to Mr. Segal, 14,000 RSUs to Dr. Koehler and 14,000 RSUs to Mr. Forte. The option awards will vest over a four-year period, with 25% of the shares subject to the award vesting on March 1, 2025, with the remainder of the award vesting monthly in equal installments over the following 36 months such that the award will vest in full on March 1, 2028, subject to the named executive officer's continuous service with us as of each such vesting date. The RSU awards will vest over a three-year period, with one-third of the shares subject to the award vesting on the first, second and third anniversaries of March 1, 2024, such that the award will vest in full on March 1, 2027, subject to the named executive officer's continuous service with us as of each such vesting date.

Executive Compensation Tables

Summary Compensation Table

The following table sets forth information regarding compensation awarded to, earned by or paid to our named executive officers during the years ended December 31, 2023 and 2022:

Name and Principal Position	Year	Salary ⁽¹⁾	Stock Awards ⁽²⁾	Option Awards ⁽²⁾	Non-Equity Incentive Compensation ⁽³⁾	All Other Compensation ⁽⁴⁾	Total
Lloyd M. Segal ⁽⁵⁾	2023	\$615,000	\$975,591	\$3,084,032	\$304,425	\$12,756	\$4,991,804
<i>President and Chief Executive Officer</i>	2022	592,000	—	3,108,000	309,320	12,075	4,021,395
Maria Koehler, M.D., Ph.D.	2023	493,500	328,509	1,068,480	182,595	17,188	2,090,272
<i>Executive Vice President, Chief Medical Officer</i>	2022	474,600	—	1,191,400	192,213	15,990	1,874,203
Steve Forte	2023	452,000	304,663	995,008	167,240	12,756	1,931,667
<i>Executive Vice President, Chief Financial Officer</i>	2022	424,400	—	1,036,000	171,882	12,075	1,644,357

- (1) Salary amounts represent actual amounts earned during the periods presented. See “—Compensation Objectives and Philosophy—Elements of Executive Compensation Program—Annual Base Salary” for further information.
- (2) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the RSU and option awards granted during the periods presented computed in accordance with ASC 718 for share-based compensation transactions. Assumptions used in the calculation of these amounts are included in the notes to our audited consolidated financial statements included in our Annual Report on Form 10-K. These amounts do not reflect the actual economic value that will be realized by the named executive officer.
- (3) Reflects performance-based cash bonuses awarded to our named executive officers during the periods presented. See “—Compensation Objectives and Philosophy—Elements of Executive Compensation Program—Non-Equity Incentive Plan Compensation” for a description of the material terms of the program pursuant to which this compensation was awarded.
- (4) Amounts reflect for 2023: (a) for Mr. Segal, life insurance premiums in the amount of \$1,071 paid by us on behalf of Mr. Segal and \$11,685 in non-matching employer contributions to a retirement plan; (b) for Dr. Koehler, life insurance premiums in the amount of \$1,352 paid by us on behalf of Dr. Koehler, \$9,900 in non-matching employer contributions to a 401(k) plan, and \$5,936 in employer contributions in lieu of a health spending account; and (c) for Mr. Forte, life insurance premiums in the amounts of \$1,071 paid by us on behalf of Mr. Forte and \$11,685 in non-matching employer contributions to a retirement plan.
- (5) Mr. Segal also serves as a member of our board of directors but does not receive any additional compensation for his service as a director.

Outstanding Equity Awards as of December 31, 2023

The following table sets forth certain information regarding outstanding equity awards granted to our named executive officers that remain outstanding as of December 31, 2023.

Name	Grant Date	Vesting Commencement Date	Option Awards ⁽¹⁾				Stock Awards ⁽¹⁾	
			Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$) ⁽²⁾	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 (\$) ⁽³⁾
Lloyd M. Segal	12/1/2017	6/22/2017	283,683	—	1.64	6/22/2027	—	—
	3/29/2019	3/29/2019	272,187	—	2.06	3/29/2029	—	—
	12/16/2019	12/16/2019	458,564	28,074 ⁽⁵⁾	2.42	12/16/2029	—	—
	6/18/2020	6/18/2020	310,335	44,333 ⁽⁴⁾	20.00	6/18/2030	—	—
	2/8/2021	2/5/2021	88,542	36,458 ⁽⁴⁾	36.91	2/8/2031	—	—
	1/21/2022	1/18/2022	143,750	156,250 ⁽⁴⁾	15.63	1/20/2032	—	—
	1/30/2023	1/30/2023	—	344,200 ⁽⁴⁾	12.42	1/29/2033	—	—
	1/30/2023	1/30/2023	—	—	—	—	78,550 ⁽⁶⁾	573,415
Maria Koehler	3/29/2019	5/1/2019	24,229	—	2.06	5/1/2029	—	—
	12/16/2019	12/16/2019	81,268	6,423 ⁽⁵⁾	2.42	12/16/2029	—	—
	6/18/2020	6/18/2020	36,085	5,155 ⁽⁴⁾	20.00	6/18/2030	—	—
	2/8/2021	2/5/2021	88,542	36,458 ⁽⁴⁾	36.91	2/8/2031	—	—
	1/18/2022	1/18/2022	55,104	59,896 ⁽⁴⁾	15.63	1/17/2032	—	—
	1/30/2023	1/30/2023	—	119,250 ⁽⁴⁾	12.42	1/29/2033	—	—
	1/30/2023	1/30/2023	—	—	—	—	26,450 ⁽⁶⁾	193,085
Steve Forte	11/29/2019	10/28/2019	325,800	—	1.88	10/28/2029	—	—
	6/18/2020	6/18/2020	36,085	5,155 ⁽⁴⁾	20.00	6/18/2030	—	—
	2/8/2021	2/5/2021	50,292	20,708 ⁽⁴⁾	36.91	2/8/2031	—	—
	1/18/2022	1/18/2022	47,917	52,083 ⁽⁴⁾	15.63	1/17/2032	—	—
	1/30/2023	1/30/2023	—	111,050 ⁽⁴⁾	12.42	1/29/2033	—	—
	1/30/2023	1/30/2023	—	—	—	—	24,530 ⁽⁶⁾	179,069

- (1) All of the awards in this table granted prior to June 18, 2020 were granted under the Repare Therapeutics Inc. Amended and Restated Option Plan (the “Pre-IPO Plan”), and all awards in this table granted on or subsequent to June 18, 2020 were granted under the Repare Therapeutics Inc. 2020 Equity Incentive Plan (the “2020 Plan”).
- (2) All of the option awards listed in the table with a grant date up to June 18, 2020 were granted with an exercise price per share that was no less than the fair market value of our common shares on the date of grant of such award, as determined in good faith by our board of directors. All of the option awards granted as of June 18, 2020 onwards were granted with an exercise price per share that was based on the volume weighted average trading price of our common shares for the five trading days prior to the date of grant.
- (3) This column represents the market value of the common shares underlying the stock awards as of December 31, 2023, based on the closing price of our common shares as reported on Nasdaq, of \$7.30 per share on December 29, 2023.
- (4) Twenty-five percent of the common shares subject to this award vested or vest on the first anniversary of the vesting commencement date, and the remaining shares vested or vest in 36 equal monthly installments thereafter, subject to the named executive officer’s continued service through each vesting date.

- (5) Twenty-five percent of the common shares subject to this award vested on the first anniversary of the vesting commencement date, and the remaining shares vested or vest in 39 equal monthly installments thereafter, subject to the named executive officer's continued service through each vesting date.
- (6) One-third of the common shares subject to this award vest on each of the first, second and third anniversaries of the vesting commencement date, subject to the named executive officer's continued service through each vesting date.

Employment Arrangements with our Named Executive Officers

We have entered into employment agreements with each of our named executive officers. The agreements set forth the terms and conditions of each executive's employment with us, including base salary, target bonus opportunity, eligibility for employee benefits and severance benefits upon a qualifying termination of employment, and certain non-solicitation and non-competition provisions. Any potential payments and benefits due upon a qualifying termination of employment or a change in control are further described below under "— Potential Payments and Benefits upon Termination or Change in Control."

The employment of each of our named executive officers may be terminated at any time in accordance with the terms of the respective agreements. In addition, each of our named executive officers has executed a form of our standard proprietary information and inventions agreement. The material terms of each agreement are described below.

Lloyd M. Segal

We entered into an employment agreement with Mr. Segal in January 2018, effective July 1, 2017 in connection with his appointment as our President and Chief Executive Officer. In June 2020, we entered into a new employment agreement with Mr. Segal which became effective upon the execution of the underwriting agreement for our IPO. Pursuant to his June 2020 employment agreement, Mr. Segal was initially entitled to an annual base salary of \$550,000, an annual target bonus with a target amount equal to 50% of his annual base salary and certain severance benefits, as described below under "—Potential Payments and Benefits upon Termination or Change of Control." To qualify for the annual target bonus set at a percentage of his adjusted base salary, in respect of any calendar year, Mr. Segal must remain continuously employed with us through the 15th day of February of the following year. Under the June 2020 employment agreement, we granted Mr. Segal an option to acquire 354,668 common shares pursuant to the 2020 Plan upon the execution of the underwriting agreement for our IPO, as described in "—Outstanding Equity Awards as of December 31, 2023" above, and Mr. Segal is also eligible for additional equity awards under our equity compensation plans, as may be granted from time to time. In July 2023, we amended Mr. Segal's June 2020 employment agreement to reflect updated termination of employment and change in control provisions to cover granted RSU awards.

Maria Koehler, M.D., Ph.D.

We entered into an employment agreement with Dr. Koehler in April 2019, effective May 1, 2019 in connection with her appointment as our Executive Vice President, Chief Medical Officer. In June 2020, we entered into a new employment agreement with Dr. Koehler which became effective upon the execution of the underwriting agreement for our IPO. Pursuant to her June 2020 employment agreement, Dr. Koehler was initially entitled to an annual base salary of \$415,000, an annual target bonus with a target amount equal to 40% of her annual base salary and certain severance benefits, as described below under "—Potential Payments and Benefits upon Termination or Change of Control." To qualify for the annual target bonus set at a percentage of her adjusted base salary in respect of any calendar year, Dr. Koehler must remain continuously employed with us through the 15th day of February of the following year. Under the June 2020 employment agreement, we granted Dr. Koehler an option to acquire 41,240 common shares pursuant to the 2020 Plan upon the execution of the underwriting agreement for our IPO, as described in "—Outstanding Equity Awards as of December 31, 2023" above. Dr. Koehler is also eligible for additional equity awards under our equity compensation plans, as may be

granted from time to time. In July 2023, we amended Dr. Koehler's June 2020 employment agreement to reflect updated termination of employment and change in control provisions to cover granted RSU awards.

Steve Forte

We entered into an employment agreement with Mr. Forte in October 2019, effective October 28, 2019 in connection with his appointment as our Executive Vice President, Chief Financial Officer. In June 2020, we entered into a new employment agreement with Mr. Forte which became effective upon the executive of the underwriting agreement for our IPO. Pursuant to his June 2020 employment agreement, Mr. Forte was initially entitled to an annual base salary of \$395,000, an annual target bonus with a target amount equal to 40% of his annual base salary and certain severance benefits, as described below under "—Potential Payments and Benefits upon Termination or Change of Control." To qualify for the annual target bonus set at a percentage of his adjusted base salary in respect of any calendar year, Mr. Forte must remain continuously employed with us through the 15th day of February of the following year. Under the June 2020 employment agreement, we granted Mr. Forte an option to acquire 41,240 common shares pursuant to the 2020 Plan upon the execution of the underwriting agreement for our IPO, as described in "—Outstanding Equity Awards as of December 31, 2023" above. Mr. Forte is also eligible for additional equity awards under our equity compensation plans, as may be granted from time to time. In July 2023, we amended Mr. Forte's June 2020 employment agreement to reflect updated termination of employment and change in control provisions to cover granted RSU awards.

Potential Payments and Benefits upon Termination or Change in Control

Regardless of the manner in which the executive's service with us terminates, each of Mr. Segal, Dr. Koehler and Mr. Forte is entitled to receive amounts earned during his or her term of service, including unpaid salary, accrued unused vacation and any vested entitlements under any employee benefit plan. Pursuant to the employment agreements we entered into with each of Mr. Segal, Dr. Koehler and Mr. Forte in June 2020, as amended in July 2023, each executive will be entitled to the following payments and benefits upon a qualifying termination of employment or a change in control. The terms of "cause," "disability" and "good reason" are each defined in the respective amended and restated employment agreements.

If the executive is terminated by us involuntarily without "cause" and not due to death or "disability" or the executive resigns for "good reason," in each case, not in connection with a "change in control" (each term as defined in the 2020 Plan), then:

- With respect to Mr. Segal, he shall be entitled to (1) cash severance equal to 12 months of base salary, paid in 12 equal monthly installments; (2) continued participation in our group insurance plans and employee benefits for 12 months; (3) accelerated vesting of his options that are subject to a time-based vesting schedule that were scheduled to vest in the 12 months following the date of termination, and Mr. Segal's vested options shall remain exercisable for up to 12 months following such termination; (4) accelerated vesting of a prorated portion of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by Mr. Segal shall vest effective as of the termination date, representing a total of 12 months of additional vesting, as if each award vested on a monthly basis and without regard to the original vesting schedule and (5) a lump sum payment equal to his target bonus pro-rated for the year of termination.
- With respect to Dr. Koehler, she shall be entitled to (1) cash severance equal to seven months of base salary, paid in seven equal monthly installments; (2) payment of COBRA premiums for up to seven months; (3) accelerated vesting of her options that are subject to a time-based vesting schedule that were scheduled to vest in the six months following the date of termination, and Dr. Koehler's vested options (other than options qualifying as incentive stock options) shall remain exercisable for up to nine months following the date of such termination; and (4) accelerated vesting of a prorated portion of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by Dr. Koehler shall vest effective as of the termination date,

representing a total of six months of additional vesting, as if each award vested on a monthly basis and without regard to the original vesting schedule.

- With respect to Mr. Forte, he shall be entitled to (1) cash severance equal to seven months of base salary, paid in seven equal monthly installments; (2) continued participation in our group insurance plans and employee benefits for seven months; (3) accelerated vesting of his options that are subject to a time-based vesting schedule that were scheduled to vest in the six months following the date of termination, and Mr. Forte's vested options shall remain exercisable for up to nine months following the date of such termination; and (4) accelerated vesting of a prorated portion of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by Mr. Forte shall vest effective as of the termination date, representing a total of six months of additional vesting, as if each award vested on a monthly basis and without regard to the original vesting schedule.

If within 90 days before or within 12 months following a change in control, either of Mr. Segal, Dr. Koehler and Mr. Forte is terminated by us (or a successor) involuntarily without "cause" and not due to death or "disability" or the executive resigns for "good reason," then:

- With respect to Mr. Segal, he shall be entitled to (1) a lump sum cash severance equal to 1.5 times the sum of base salary and the higher of his target bonus for the year in which the termination occurs or the annual bonus received for the prior year; (2) continued participation in our group insurance plans and employee benefits for 18 months; (3) full accelerated vesting of his options that are subject to a time-based vesting schedule, and Mr. Segal's vested options shall remain exercisable for up to 12 months following such termination; (4) full accelerated vesting of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by Mr. Segal; and (5) a lump sum payment equal to his target bonus pro-rated for the year of termination.
- With respect to Dr. Koehler, she shall be entitled to (1) a lump-sum cash severance equal to the sum of base salary and the higher of her target bonus for the year in which the termination occurs or the annual bonus received for the prior year; (2) payment of COBRA premiums for up to 12 months; (3) full accelerated vesting of her options that are subject to a time-based vesting schedule, and Dr. Koehler's vested options (other than options qualifying as incentive stock options) shall remain exercisable for up to nine months following such termination; and (4) full accelerated vesting of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by Dr. Koehler.
- With respect to Mr. Forte, he shall be entitled to (1) a lump-sum cash severance equal to the sum of base salary and the higher of his target bonus for the year in which the termination occurs or the annual bonus received for the prior year; (2) continued participation in our group insurance plans and employee benefits for up to 12 months; (3) full accelerated vesting of his options that are subject to a time-based vesting schedule, and Mr. Forte's vested option shall remain exercisable for up to nine months following such termination; and (4) full accelerated vesting of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by Mr. Forte.

Mr. Segal's, Dr. Koehler's and Mr. Forte's severance payments and benefits under the employment agreements are, in all events, conditioned on the executive, among other things, giving notice following a cure period (as applicable), complying with post-resignation or post-termination obligations under the applicable agreement, including any non-disparagement and confidentiality obligations contained therein, and signing a general release of claims against us.

Further, in the event the executive's employment terminates due to death or "disability", then:

- With respect to Mr. Segal and Mr. Forte, the executive shall be entitled to (1) continued participation in our group insurance plans and employee benefits for 12 months in Mr. Segal's case and for 7 months in

Mr. Forte's case; (2) accelerated vesting of the executive's options that are subject to a time-based vesting schedule that were scheduled to vest in the 12 months following the date of termination, and the executive's vested options shall remain exercisable for up to 12 months following such termination; and (3) accelerated vesting of a prorated portion of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by the executive shall vest effective as of the termination date, representing a total of 12 months of additional vesting, as if each award vested on a monthly basis and without regard to the original vesting schedule.

- With respect to Dr. Koehler, she shall be entitled to (1) payment of COBRA premiums for up to seven months; (2) accelerated vesting of her options that are subject to a time-based vesting schedule that were scheduled to vest in the 12 months following the date of termination, and Dr. Koehler's vested options (other than options qualifying as incentive stock options) shall remain exercisable for up to 12 months following the date of such termination; and (3) accelerated vesting of a prorated portion of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by Dr. Koehler shall vest effective as of the termination date, representing a total of 12 months of additional vesting, as if each award vested on a monthly basis and without regard to the original vesting schedule.

If we elect to enforce the non-competition provisions set forth in Dr. Koehler's employment agreement following an involuntary termination by us for "just cause" (as such term is defined in the respective agreement) or her resignation, then we have agreed to provide Dr. Koehler with consideration in the form of the greater of (x) continuing salary payments for one year following the date of her termination at a rate equal to no less than 50% of the highest annualized base salary paid to Dr. Koehler by us within the two years prior to her termination date and (y) the sum of (i) accelerated vesting of all of Dr. Koehler's options that are subject to a time-based vesting schedule which would have vested if she had remained employed for an additional 12 months following the termination date and (ii) accelerated vesting of a prorated portion of all other outstanding equity awards, including without limitation, RSUs, that are subject to a time-based vesting schedule and that are held by Dr. Koehler shall vest effective as of the termination date, representing a total of 12 months of additional vesting, as if each award vested on a monthly basis and without regard to the original vesting schedule.

Equity Compensation Plan Information

The following table summarizes our equity compensation plan information as of December 31, 2023. Information is included for equity compensation plans approved by our shareholders.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, RSUs, Warrants and Rights ⁽¹⁾	(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights ⁽²⁾	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) ⁽³⁾
Equity plans approved by shareholders	10,461,456	\$ 13.87	3,711,754
Equity plans not approved by shareholders ⁽⁴⁾	240,000	\$ 9.83	—

(1) Includes the Pre-IPO Plan and the 2020 Plan, but does not include future rights to purchase common shares under our 2020 Employee Share Purchase Plan ("2020 ESPP"), which depend on a number of factors described in our 2020 ESPP and will not be determined until the end of the applicable purchase period.

(2) The weighted-average exercise price excludes any outstanding restricted stock unit awards, which have no exercise price.

- (3) Includes the 2020 Plan and 2020 ESPP. Stock options or other share awards granted under the Pre-IPO Plan that are forfeited, terminated, expired or repurchased become available for issuance under the 2020 Plan. In accordance with the terms of the 2020 Plan and the 2020 ESPP, the total number of our common shares reserved for issuance thereunder automatically increased on January 1st in an amount equal to 5.0% and 1.0%, respectively, of the total number of shares of share capital outstanding on December 31st of the preceding year. Accordingly, on January 1, 2024, the number of our common shares available for issuance under the 2020 Plan and the 2020 ESPP increased by 2,108,802 shares and 421,760 shares, respectively, pursuant to these provisions. These increases are not reflected in the table above.
- (4) Reflects grants of stock options that were “inducement grants” as defined under Nasdaq Listing Rule 5635(c)(4). The inducement grants have terms and conditions consistent with those set forth under the 2020 Plan and vest under similar vesting schedules as stock option awards granted under the 2020 Plan. Additionally, in April 2024, our board of directors approved the adoption of the 2024 Inducement Plan (the “Inducement Plan”), to be used exclusively for grants of awards to individuals who were not previously our employees or directors (or following a bona fide period of non-employment) as a material inducement to such individuals’ entry into employment with us, pursuant to Nasdaq Listing Rule 5635(c)(4). The terms and conditions of the Inducement Plan are substantially similar to those of the 2020 Plan. We have reserved 350,000 common shares for issuance under the Inducement Plan. The shares reserved for issuance under the Inducement Plan are not reflected in the table above.

Limitation on Liability and Indemnification Matters

Under the QBCA and our Bylaws, we must indemnify our current or former directors and officers, agents or any other individuals who act or has acted at our request as a director or officer of another group, against all costs, charges and expenses reasonably incurred in the exercise of such individual’s functions, including an amount paid to settle an action or satisfy a judgment, or arising from any investigative or other proceeding in which such individual is involved. The QBCA also provides that we must advance moneys to such individual for costs, charges and expenses incurred in connection with such a proceeding; provided that such individual shall repay such payment if he or she does not fulfill the conditions described below.

Indemnification is prohibited under the QBCA unless the individual:

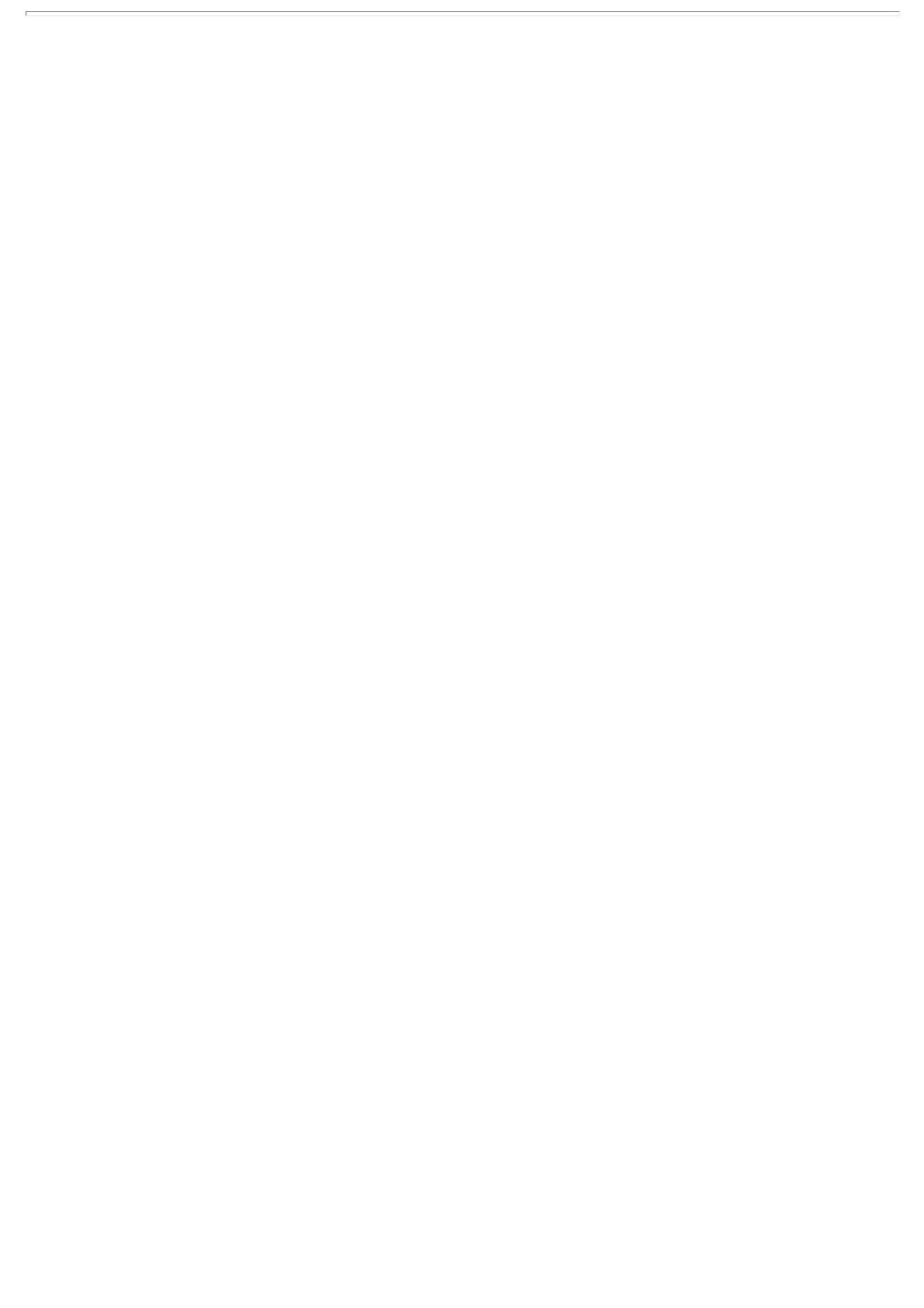
- acted with honesty and loyalty in our interests, or in the interest of the other group for which the individual acted as director or officer or in a similar capacity at our request; and
- in the case of a proceeding that is enforced by a monetary penalty, the individual had reasonable grounds for believing that his or her conduct was lawful.

The QBCA and our Bylaws authorize us to purchase and maintain insurance for the benefit of each of our current or former directors or officers and each person who acts or acted at our request as a director, officer or an individual acting in a similar capacity, of another entity.

In addition, we have entered, and intend to continue to enter, into separate indemnity agreements with each of our directors and officers. These indemnity agreements, among other things, require us to indemnify our directors and officers for certain expenses, including attorneys’ fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of their services as a director or officer, or any other company or enterprise to which the person provides services at our request.

We maintain a directors’ and officers’ insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers. We believe that these provisions in our articles of continuance and Bylaws and these indemnity agreements are necessary to attract and retain qualified persons as directors and officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or control persons, in the opinion of the SEC, such indemnification is against public policy, as expressed in the Securities Act and is therefore unenforceable.



PAY VERSUS PERFORMANCE

As required by Section 953(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 402(v) of Regulation S-K, we are providing the following information about the relationship between executive compensation actually paid and our financial performance. For the most recently completed fiscal year, we did not use any “financial performance measures” as defined Item 402(v) of Regulation S K to link compensation paid to our named executive officers. Accordingly, we have omitted the tabular list of financial performance measures and the table below does not include a column for a “Company-Selected Measure” as defined in Item 402(v) of Regulation S-K.

The disclosure included in this section is prescribed by the SEC rules and does not necessarily align with how we or the compensation committee views the link between our performance and pay of our named executive officers (“NEOs”). For further information regarding our compensation philosophy and how we seek to align executive compensation with our performance, refer to “Executive Compensation.”

The use of the terms “compensation actually paid” (“CAP”) is required by the SEC’s rules. Neither CAP nor the total amount reported in the Summary Compensation Table reflect the amount of compensation actually paid, earned or received during the applicable year. Per SEC rules, CAP was calculated by adjusting the Summary Compensation Table total values for the applicable year as described in the footnotes to the following table.

Tabular Disclosure of Pay Versus Performance

The following table sets forth information concerning the comparison of our performance for the years ended December 31, 2023, 2022 and 2021 to the CAP paid to (1) our Chief Executive Officer and Principal Executive Officer, Lloyd Segal, whom we refer to in this section as “PEO,” and (2) our other NEOs, which include (a) for 2023, Steve Forte and Maria Koehler, M.D., Ph.D., (b) for 2022, Dr. Koehler and Michael Zinda, Ph.D., and (b) for 2021, Steve Forte, Dr. Koehler and Dr. Zinda, who we collectively refer to in this section, as applicable, as “Non-PEO NEOs.”

Year	Summary Compensation Table Total for PEO (\$)	Compensation Actually Paid to PEO (\$) ⁽¹⁾	Average Summary Compensation Table Total for Non-PEO NEOs(\$)	Average Compensation Actually Paid to Non-PEO NEOs (\$) ⁽¹⁾	Value of Initial Fixed \$100 Investment Based on Shareholder Return (\$) ⁽²⁾	Net Loss (in thousands) (\$) ⁽³⁾
2023	4,991,804	(1,573,992)	2,010,970	(317,435)	(21.98)	(93,796)
2022	4,021,395	910,352	1,851,269	484,853	(42.89)	(29,047)
2021	3,909,619	(8,953,610)	3,209,335	(1,132,087)	(61.49)	(106,908)

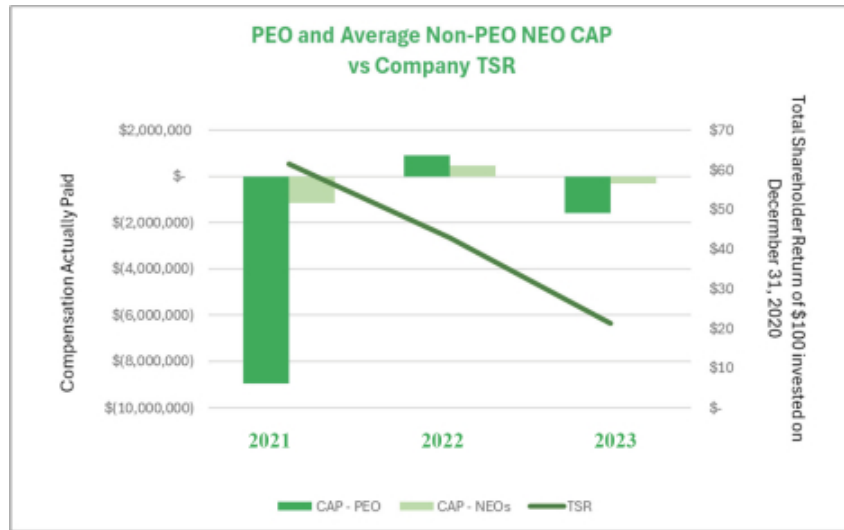
- (1) Compensation actually paid reflects the total compensation reported in the Summary Compensation Table for the applicable year, adjusted to include or exclude the amount shown in the table below for the NEOs. Grant date fair value represents the grant date fair value of equity-based awards granted in each year. Fair value adjustments reflect adjustments to the value of equity awards as calculated in accordance with the rules prescribed under Item 402(v) of Regulation S-K and in accordance with FASB ASC Topic 718.

Year	2023		2022		2021	
	PEO (\$)	Average of Non-PEO NEOs (\$)	PEO (\$)	Average of Non-PEO NEOs (\$)	PEO (\$)	Average of Non-PEO NEOs (\$)
Total from Summary Compensation Table	4,991,804	2,010,970	4,021,395	1,851,269	3,909,619	3,209,335
Adjustments:						
Deduction for amounts reported under the “Stock Awards” and “Option Awards” columns of the Summary Compensation Table	(4,059,623)	(1,348,330)	(3,108,000)	(1,191,400)	(2,996,250)	(2,564,790)
Increase (Decrease) for the inclusion of Rule 402(v) Equity Values						
Change in fair value of equity awards granted during the year that vested during the year	—	—	—	—	—	—
Year-end fair value of equity awards granted during the year that remained unvested as of the last day of the year	2,111,989	700,798	3,438,000	1,312,150	1,848,750	1,582,530
Change in fair value from last day of the prior year to the last day of the year of unvested equity awards	(1,959,858)	(695,698)	(1,737,059)	(731,908)	(7,152,210)	(2,102,727)
Change in fair value of prior year’s equity awards that vested during the year	(2,658,304)	(985,175)	(1,703,984)	(755,258)	(4,563,519)	(1,256,435)
Change in value of prior year’s equity awards that forfeited during the year	—	—	—	—	—	—
Dividends or other earnings on equity awards paid during the year, prior to vesting of equity awards, that are not otherwise reflected in the fair value of such equity award included in any other component of total compensation	—	—	—	—	—	—
Compensation actually paid	(1,573,992)	(317,435)	910,352	484,853	(8,953,610)	(1,132,087)

- (2) Our Total Shareholder Return (“TSR”) for each of the applicable fiscal years is calculated based on a fixed investment of \$100 at the applicable measurement point (December 31, 2020) on the same cumulative basis as is used in Item 201(e) of Regulation S-K.
- (3) Net loss is as reported in our consolidated financial statements.

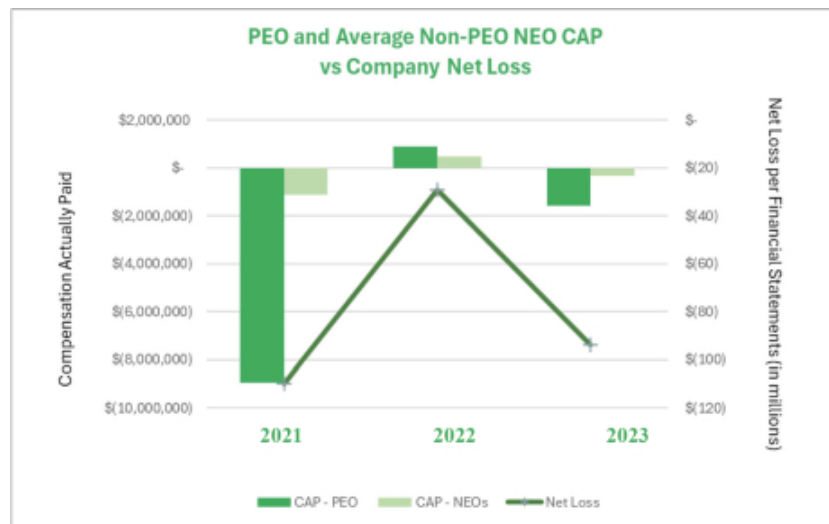
CAP vs. TSR

The chart below shows the relationship between the CAP to our PEO and the average CAP to our Non-PEO NEOs, on the one hand, to our cumulative TSR over the three years presented in the table, on the other.



CAP vs. Net Loss

The chart below shows the relationship between the compensation actually paid to our PEO and the average compensation actually paid to our Non-PEO NEOs, on the one hand, to our net loss over the three years presented in the chart, on the other. We do not use net loss or other profitability measures as a performance metric in annual and long-term incentive plans.



All information provided above under the "Pay Versus Performance" heading will not be deemed to be incorporated by reference into any filing of Repare under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

NON-EMPLOYEE DIRECTOR COMPENSATION

Director Compensation Table

The following table sets forth information regarding compensation earned by or paid to our non-employee directors for the fiscal year ended December 31, 2023. Mr. Segal, our President and Chief Executive Officer, is also a member of our board of directors but he does not receive any additional compensation for his service as a director. See the section titled “Executive Compensation” for more information regarding the compensation earned by Mr. Segal.

Name	Fees Earned of Paid in Cash (\$)	Option Awards (\$) ⁽¹⁾⁽²⁾	All Other Compensation (\$) ⁽³⁾	Total (\$)
David Bonita, M.D.	44,000	221,408	—	265,408
Thomas Civik	69,000	221,408	1,081	291,489
Jerel Davis, Ph.D. ⁽⁴⁾	18,901	—	—	18,901
Todd Foley	42,500	221,408	1,842	265,750
Samarth Kulkarni, Ph.D.	42,816	221,408	1,081	265,305
Susan Molineaux, Ph.D. ⁽⁵⁾	24,780	640,080	—	664,860
Briggs Morrison, M.D.	47,368	221,408	—	268,776
Ann D. Rhoads	52,253	221,408	1,081	274,742
Carol A. Schafer	50,500	221,408	1,081	272,989

- (1) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the option awards granted during 2023 computed in accordance with ASC 718. Assumptions used in the calculation of these amounts are included in the notes to our audited consolidated financial statements included in the Annual Report. These amounts do not reflect the actual economic value that will be realized by our non-employee directors.
- (2) On June 8, 2023, each non-employee director (excluding Dr. Molineaux) was automatically granted an annual refresher award of an option to purchase 27,200 common shares at an exercise price of \$11.66, vesting in equal monthly installments over a 12-month period, subject to the non-employee director’s continued service through each such vesting date. In connection with her appointment to our board of directors on June 8, 2023, Dr. Molineaux was automatically granted an initial award of an option to purchase 76,200 common shares at an exercise price of \$11.66, vesting as to one-third of the total number of common shares subject to this award on the first anniversary of the vesting commencement date, with the remaining shares vesting in 24 equal monthly installments thereafter, subject to Dr. Molineaux’s continued service through each such vesting date. The following table provides information regarding the number of common shares underlying stock options granted to our non-employee directors that were outstanding as of December 31, 2023:

Name	Option Awards Outstanding at Year End (#)
David Bonita, M.D.	97,200
Thomas Civik	118,200
Todd Foley	97,200
Samarth Kulkarni, Ph.D.	168,133
Susan Molineaux, Ph.D.	76,200
Briggs Morrison, M.D.	187,928
Ann D. Rhoads	136,107
Carol A. Schafer	168,133

- (3) Reflects fees paid for personal tax advice with regards to Canadian tax implications of board fees earned.

- (4) Dr. Davis resigned from our board of directors effective as of June 8, 2023, the date of our 2023 Annual Meeting of Shareholders.
- (5) Dr. Molineaux was appointed to our board of directors effective as of June 8, 2023, the date of our 2023 Annual Meeting of Shareholders.

Non-Employee Director Compensation Policy

Under our non-employee director compensation policy, as amended, each of our non-employee directors is eligible to receive cash and equity compensation for service on our board of directors and committees of our board of directors. The non-employee director compensation policy was most recently amended in February 2024, with effect as of the date of the Annual Meeting.

Cash Compensation

The non-employee director compensation policy provides our non-employee directors with the following cash compensation for their services:

	Annual Cash Retainer (\$)
Annual retainer	40,000
Additional retainer for non-executive chairperson	30,000
Additional retainer for audit committee chair	15,000
Additional retainer for audit committee member	7,500
Additional retainer for compensation committee chair	10,000
Additional retainer for compensation committee member	5,000
Additional retainer for nominating and governance committee chair	8,000
Additional retainer for nominating and governance committee member	4,000
Additional retainer for science and technology committee chair	8,000
Additional retainer for science and technology committee member	4,000

These retainers are payable in arrears in four equal quarterly installments within thirty days after the end of each calendar quarter, provided that the amount of such payment will be prorated for any portion of such quarter that the director is not serving on our board. We also reimburse our directors for their reasonable out-of-pocket expenses in connection with attending our board and committee meetings.

Equity Compensation

In addition to cash compensation, each non-employee director is eligible to receive options under the 2020 Plan. Each option granted under the policy is a nonstatutory stock option and has an exercise price per share equal to the fair market value of a common share on the date of grant. Any options granted under this policy have a term of 10 years from the date of grant, subject to earlier termination in connection with a termination of the eligible director's continuous service with us. Vesting schedules for equity awards are subject to the non-employee director's continuous service on each applicable vesting date.

Upon the termination of the membership of the non-employee director on the board for any reason, such director's options granted under this policy shall remain exercisable for three months following such director's date of termination (or such longer period as the board may determine in its discretion on or after the date of grant of such options).

Notwithstanding any vesting schedule, for each non-employee director who remains in continuous service with us until immediately prior to the closing of a change in control (as such term is defined in our 2020 Plan), the shares subject to such director's then-outstanding initial or annual equity awards that were granted pursuant to this policy will become fully vested immediately prior to the closing of such change in control.

Initial Award

Each new non-employee director who first joins our board of directors will automatically, upon the date of such director's initial election or appointment to be a non-employee director, be granted an initial, one-time equity award of options to purchase 54,000 common shares, referred to as the initial grant. One-third of each initial grant will vest on the first anniversary of the date of grant, with the remainder vesting in equal monthly installments thereafter until the third anniversary of the date of grant.

Annual Awards

On the date of each annual meeting of our shareholders, each non-employee director who continues to serve will automatically be granted an option to purchase 27,200 common shares, which will vest in equal monthly installments over the 12 months following the date of grant, subject to (i) the non-employee director's continuous service through each applicable vesting date and (ii) that no annual award will be granted to a non-employee director in the same calendar year that such director received their initial grant.

PROPOSAL 3
APPOINTMENT OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The audit committee of our board of directors has recommended Ernst & Young LLP be put before the shareholders at the Annual Meeting for appointment as our independent registered public accounting firm for the fiscal year ending December 31, 2024. Ernst & Young LLP has audited our financial statements since 2017. Representatives of Ernst & Young LLP are expected to be present at the Annual Meeting. Such representatives will have an opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions.

Under the *Business Corporations Act* (Québec), at each annual meeting of shareholders, shareholders must appoint, by a simple majority of the votes cast in respect of that proposal, an auditor to hold office until the close of the next annual meeting of shareholders. Notwithstanding the foregoing, if an auditor is not appointed at a meeting of shareholders, the incumbent auditor continues in office until a successor is appointed. Ernst & Young LLP currently serves as our auditor and, therefore, shall continue to serve as our auditor in the event that this proposal is not adopted by the shareholders.

Vote Required: A simple majority of the votes cast at the Annual Meeting by virtual attendance or represented by proxy will be required to appoint Ernst & Young LLP and to authorize the board of directors to fix Ernst & Young LLP's remuneration. You may vote "FOR" the appointment of Ernst & Young LLP or "WITHHOLD" your vote with respect to such appointment.

Principal Accountant Fees and Services

The following table represents aggregate fees billed to us by Ernst & Young LLP for the periods set forth below.

	<u>Fiscal Year Ended⁽¹⁾</u>	
	<u>2023</u>	<u>2022</u>
	(in thousands)	
Audit Fees ⁽²⁾	\$ 627	\$ 808
Audit-Related Fees	—	—
Tax Fees ⁽³⁾	61	76
All Other Fees	—	—
Total Fees	<u>\$ 688</u>	<u>\$ 884</u>

- (1) Fees paid in Canadian dollars have been converted to U.S. dollars at the average exchange rate of \$0.7407 for the year ended December 31, 2023 and \$0.7685 for the year ended December 31, 2022, respectively, based on Bank of Canada average exchange rates.
- (2) Audit fees consist of fees billed for professional services provided in connection with the audit of our annual financial statements, the review of our quarterly financial statements, and audit services that are normally provided by independent registered public accounting firm in connection with regulatory filings. The audit fees also include fees for professional services provided in connection with registration statements, including comfort letters, consents and review of documents filed with the SEC.
- (3) Tax fees consist of professional services for corporate tax compliance and tax advisory services.

All fees described above were pre-approved by our audit committee.

Pre-Approval Policies and Procedures

Our audit committee has adopted a policy and procedures for the pre-approval of audit and non-audit services rendered by our independent registered public accounting firm, Ernst & Young LLP. The policy

generally pre-approves specified services in the defined categories of audit services, audit-related services and tax services up to specified amounts. Pre-approval may also be given as part of the audit committee's approval of the scope of the engagement of the independent auditor or on an individual, explicit, case-by-case basis before the independent auditor is engaged to provide each service. The pre-approval of services may be delegated to one or more of the audit committee's members, but the decision must be reported to our full audit committee at its next scheduled meeting.

Our audit committee has determined that the rendering of services other than audit services by Ernst & Young LLP is compatible with maintaining the principal accountant's independence.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE APPOINTMENT OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM AND AUTHORIZATION OF THE BOARD TO FIX ERNST & YOUNG LLP'S REMUNERATION.

**SECURITY OWNERSHIP OF
CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth certain information regarding the ownership of our common shares as of April 15, 2024 by:

- each person or entity known by us to be beneficial owners of more than five percent of our common shares;
- each of our current directors and director nominees;
- each of our named executive officers; and
- all of our executive officers and directors as a group.

We have determined beneficial ownership in accordance with the rules of the SEC. Under these rules, beneficial ownership includes any common shares as to which the individual or entity has sole or shared voting power or investment power. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, common shares subject to options held by such person that are currently exercisable or will become exercisable within 60 days of April 15, 2024 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person.

Unless noted otherwise, the address of all listed shareholders is c/o Repare Therapeutics Inc., 7171 Frederick-Banting, Building 2, Suite 270, St-Laurent, Québec, Canada H4S 1Z9.

Beneficial Owner	Beneficial Ownership⁽¹⁾	
	Number of Shares	Percent of Total
Greater than 5% Shareholders		
Entities affiliated with BVF ⁽²⁾	10,333,600	24.3%
Entities affiliated with OrbiMed ⁽³⁾	3,322,488	7.8%
Blue Owl Capital Holdings ⁽⁴⁾	3,122,499	7.4%
Entities affiliated with Deep Track Capital ⁽⁵⁾	2,992,731	7.1%
Entities affiliated with Versant ⁽⁶⁾	2,967,652	7.0%
ARK Investment Management LLC ⁽⁷⁾	2,821,560	6.6%
Entities affiliated with MPM ⁽⁸⁾	2,242,636	5.3%
Entities affiliated with Redmile ⁽⁹⁾	2,148,748	5.1%
Named Executive Officers and Directors		
Lloyd M. Segal ⁽¹⁰⁾	1,901,556	4.3%
Maria Koehler, M.D. ⁽¹¹⁾	563,077	1.3%
Steve Forte ⁽¹²⁾	535,120	1.2%
David Bonita, M.D. ⁽³⁾	3,419,688	8.0%
Thomas Civik ⁽¹³⁾	122,200	*
Todd Foley ⁽⁸⁾	2,339,836	5.5%
Samarth Kulkarni, Ph.D. ⁽¹⁴⁾	168,133	*
Susan Molineaux, Ph.D. ⁽¹⁵⁾	25,400	*
Briggs Morrison, M.D. ⁽¹⁶⁾	192,728	*
Ann D. Rhoads ⁽¹⁷⁾	140,107	*
Carol A. Schafer ⁽¹⁸⁾	176,133	*
All executive officers and directors as a group (12 persons) ⁽¹⁹⁾	10,042,770	21.6%

* Less than one percent.

(1) This table is based upon information supplied by officers, directors and principal shareholders and Schedules 13D and 13G and Forms 3 and 4 filed with the SEC. Unless otherwise indicated in the footnotes

- to this table and subject to community property laws where applicable, we believe that each of the shareholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned. Applicable percentages are based on 42,445,406 shares outstanding on April 15, 2024, adjusted as required by rules promulgated by the SEC.
- (2) Consists of (a) 5,309,432 common shares held by Biotechnology Value Fund, L.P. (“BVF”); (b) 4,308,573 common shares held by Biotechnology Value Fund II, L.P. (“BVF2”); (c) 548,938 common shares held by Biotechnology Value Trading Fund OS LP (“Trading Fund OS”); and (d) 166,657 common shares held in a certain managed account (the “Partners Managed Account”) managed by BVF Partners L.P. (“BVF Partners”). BVF I GP LLC (“BVF GP”), as the general partner of BVF, may be deemed to beneficially own the common shares beneficially owned by BVF. BVF II GP LLC (“BVF2 GP”), as the general partner of BVF2, may be deemed to beneficially own the common shares beneficially owned by BVF2. BVF Partners OS Ltd (“Partners OS”), as the general partner of Trading Fund OS, may be deemed to beneficially own the common shares beneficially owned by Trading Fund OS. BVF GP Holdings LLC (“BVF GPH”), as the sole member of each of BVF GP and BVF2 GP, may be deemed to beneficially own the common shares beneficially owned in the aggregate by BVF and BVF2. BVF Partners, as the investment manager of BVF, BVF2, Trading Fund OS and the Partners Managed Account, may be deemed to beneficially own the Shares beneficially owned in the aggregate by BVF, BVF2, Trading Fund OS, and the Partners Managed Account. BVF Inc., as the general partner of BVF Partners, may be deemed to beneficially own the common shares beneficially owned by BVF Partners. Mark N. Lampert, as the sole director and officer of BVF Inc., may be deemed to beneficially own the common shares beneficially owned by BVF Inc. Each of the entities and individuals listed above expressly disclaims beneficial ownership of the securities listed above except to the extent of any pecuniary interest therein. The address of each of the above person and entities is 44 Montgomery St., 40th Floor, San Francisco, CA 94104.
 - (3) Consists of (a) 3,177,041 common shares held by OrbiMed Private Investments VII, L.P. (“OPI VII”), (b) 49,257 common shares held by The Biotech Growth Trust PLC (“BIOG”), (c) 96,190 common shares held by OrbiMed Partners Master Fund Limited (“OPM”) and (d) with respect to David Bonita, M.D., a member of our board of directors, only, 97,200 common shares issuable upon the exercise of options granted to Dr. Bonita that are exercisable within 60 days of April 15, 2024. OrbiMed Capital GP VII LLC (“OrbiMed GP”) is the general partner of OPI VII, pursuant to the terms of the limited partnership agreement of OPI VII, and OrbiMed Advisors LLC (“OrbiMed Advisors”) is the managing member of OrbiMed GP, pursuant to the terms of the limited liability company agreement of OrbiMed GP. As a result, OrbiMed Advisors and OrbiMed GP share power to direct the vote and disposition of the common shares held by OPI VII and may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the common shares held by OPI VII. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the common shares held by OPI VII. David Bonita, M.D., a member of our board of directors, is a member of OrbiMed Advisors. OrbiMed Capital LLC (“OrbiMed Capital”) is the investment advisor of each of BIOG and OPM. As a result, OrbiMed Capital has the power to direct the vote and disposition of the common shares held by BIOG and OPM and may be deemed directly or indirectly, including by reason of mutual affiliation, to be the beneficial owner of the common shares held by BIOG and OPM. OrbiMed Capital exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the common shares held by BIOG and OPM. Dr. Bonita is a member of OrbiMed Capital. The address of each of the above persons and entities is 601 Lexington Avenue, 54th Floor, New York, NY 10022.
 - (4) Consists of 3,122,499 common shares held by Blue Owl Capital Holdings LP. The address for Blue Owl Capital Holdings LP is 399 Park Avenue, NY 10022.
 - (5) Consists of 2,992,731 common shares held by Deep Track Capital, LP, Deep Track Biotechnology Master Fund, Ltd. and David Kroin. The address for each of Deep Track Capital, LP and Mr. Kroin is c/o Deep Tack Capital, LP, 200 Greenwich Ave., 3rd Floor, Greenwich, CT 06830. The address for Deep Track Biotechnology Master Fund, Ltd. is c/o Walkers Corporate Limited, 190 Elgin Ave, George Town, KY1-9001, Cayman Islands.

- (6) Consists of (a) 563,403 common shares held by Versant Venture Capital V, L.P. (“Versant V”); (b) 42,877 common shares held by Versant Venture Capital V (Canada) LP (“Versant V Canada”); (c) 18,761 common shares held by Versant Ophthalmic Affiliates Fund I, L.P. (“Versant Ophthalmic”); (d) 16,949 common shares held by Versant Affiliates Fund V, L.P. (“Versant Affiliates V”); (e) 2,094,451 common shares held by Versant Venture Capital VI, L.P. (“Versant VI”); and (f) 231,211 common shares held by Versant Vantage I, L.P. (“Versant Vantage”). Versant V, Versant V Canada, Versant Ophthalmic, Versant Affiliates V, Versant VI and Versant Vantage are collectively referred to as the Versant Entities. Versant Ventures V, LLC is the general partner of each of Versant V, Versant Ophthalmic and Versant Affiliates V and shares voting and dispositive control over the shares held by such entities. Versant Ventures V GP-GP (Canada), Inc. is the sole general partner of Versant Ventures V (Canada), L.P., which is the general partner of Versant V Canada, and each of these entities shares voting and dispositive control over the shares held by Versant V Canada. Jerel Davis, Ph.D., Brad Bolzon, Tom Woiwode, William Link, Samuel Colella, Kirk Nielsen and Robin Praeger, the managing directors of Versant Ventures V, LLC and the directors of Versant Ventures V GP-GP (Canada), Inc., may be deemed to possess voting and dispositive control over the shares held by Versant V, Versant V Canada, Versant Ophthalmic and Versant Affiliates V and may be deemed to have indirect beneficial ownership of the shares held by Versant V, Versant V Canada, Versant Ophthalmic and Versant Affiliates V but disclaims beneficial ownership of such securities, except to the extent of their respective pecuniary interest therein, if any. Versant Ventures VI GP-GP, LLC is the sole general partner of Versant Ventures VI GP, L.P., which is the sole general partner of Versant VI, and each of these entities shares voting and dispositive control over the shares held by Versant VI. Jerel Davis, Ph.D., Brad Bolzon, Tom Woiwode, Clare Ozawa, Kirk Nielsen and Robin Praeger, the managing directors of Versant Ventures VI GP-GP, LLC, may be deemed to possess voting and dispositive control over the shares held by Versant VI and may be deemed to have indirect beneficial ownership of the shares held by Versant VI but disclaims beneficial ownership of such securities, except to the extent of their respective pecuniary interest therein, if any. Versant Vantage I GP-GP, LLC is the sole general partner of Versant Vantage I GP, L.P., which is the sole general partner of Versant Vantage, and each of these entities shares voting and dispositive control over the shares held by Versant Vantage. Jerel Davis, Ph.D., Brad Bolzon, Tom Woiwode, Clare Ozawa and Robin Praeger, the managing directors of Versant Vantage I GP-GP, LLC, may be deemed to possess voting and dispositive control over the shares held by Versant Vantage and may be deemed to have indirect beneficial ownership of the shares held by Versant Vantage but disclaims beneficial ownership of such securities, except to the extent of their respective pecuniary interest therein, if any. The address each of the above persons and entities is One Sansome Street, Suite 3630, San Francisco, CA 94104.
- (7) Consists of 2,821,560 common shares held by ARK Investment Management LLC. The address of ARK Investment Management LLC is 200 Central Avenue, St. Petersburg, FL 33701.
- (8) Consists of (a) 2,036,689 common shares held by MPM BioVentures 2014, L.P. (“MPM 2014”); (b) 135,843 common shares held by MPM BioVentures 2014 (B), L.P. (“MPM B 2014”); (c) 70,104 common shares held by MPM Asset Management Investors BV2014 LLC (“MPM LLC”) and (d) with respect to Todd Foley, a member of our board of directors, only, 97,200 common shares issuable upon the exercise of options granted to Mr. Foley that are exercisable within 60 days of April 15, 2024. MPM 2014, MPM B 2014 and MPM LLC are collectively referred to as the MPM Entities. Mr. Foley, a member of our board of directors, Luke Evnin and Ansbert Gadick and are managing directors of MPM BioVentures 2014 LLC (“BV2014 LLC”). BV2014 LLC is the Managing Member of MPM BioVentures 2014 GP LLC, which is the General Partner of MPM 2014 and MPM B 2014. MPM LLC invests alongside MPM 2014 and MPM B 2014. Each of Drs. Evnin and Gadick and Mr. Foley shares power to vote, acquire, hold and dispose of the shares held by each of the MPM Entities. Each of the entities and individuals listed above expressly disclaims beneficial ownership of the securities listed above except to the extent of any pecuniary interest therein. The address of each of the above persons and entities is 450 Kendall Street, Cambridge, MA 02142.
- (9) Consists of 2,148,748 common shares held by certain private investment vehicles and/or separately managed accounts managed by Redmile Group, LLC (“Redmile”). Redmile serves as investment manager of such private investment vehicles and/or separately managed accounts may be deemed to beneficially own such shares. Jeremy C. Green serves as the principal of Redmile, and as such shares voting and dispositive power over the shares. Redmile and Mr. Green each disclaim beneficial ownership of these shares, except to

the extent of its or his pecuniary interest in such shares, if any. The address of Redmile is Letterman Digital Arts Center, One Letterman Drive, Building D, Suite D3-300, The Presidio of San Francisco, San Francisco, CA 94129. The address of Mr. Green is c/o Redmile Group, LLC, 45 W. 27th Street, Floor 11, New York, NY 10001.

- (10) Consists of (a) 107,558 common shares held by Arvala Inc., (b) 10,311 common shares held by Mr. Segal and (c) 1,783,687 common shares issuable upon the exercise of options granted to Mr. Segal that are exercisable within 60 days of April 15, 2024.
- (11) Consists of (a) 199,776 common shares held by Dr. Koehler and (b) 363,301 common shares issuable upon the exercise of options granted to Dr. Koehler that are exercisable within 60 days of April 15, 2024.
- (12) Consists of (a) 14,422 common shares held by Mr. Forte and (b) 520,698 common shares issuable upon the exercise of options granted to Mr. Forte that are exercisable within 60 days of April 15, 2024.
- (13) Consists of (a) 7,500 common shares held by Mr. Civik and (b) 114,700 common shares issuable upon the exercise of options granted to Mr. Civik that are exercisable within 60 days of April 15, 2024.
- (14) Consists of 168,133 common shares issuable upon the exercise of options granted to Dr. Kulkarni that are exercisable within 60 days of April 15, 2024.
- (15) Consists of 25,400 common shares issuable upon the exercise of options granted to Dr. Molineaux that are exercisable within 60 days of April 15, 2024.
- (16) Consists of (a) 4,800 common shares held by Dr. Morrison and (b) 187,928 common shares issuable upon the exercise of options granted to Dr. Morrison that are exercisable within 60 days of April 15, 2024.
- (17) Consists of (a) 4,000 common shares held by Ms. Rhoads and (b) 136,107 common shares issuable upon the exercise of options granted to Ms. Rhoads that are exercisable within 60 days of April 15, 2024.
- (18) Consists of (a) 8,000 common shares held by Ms. Schafer and (b) 168,133 common shares issuable upon the exercise of options granted to Ms. Schafer that are exercisable within 60 days of April 15, 2024.
- (19) Consists of (a) 5,963,032 common shares held by our directors and executive officers and (b) 4,079,738 common shares issuable upon the exercise of options granted to our directors and executive officers that are exercisable within 60 days of April 15, 2024.

TRANSACTIONS WITH RELATED PERSONS AND INDEMNIFICATION

Other than the executive officer and director compensation arrangements discussed in the sections titled “Executive Compensation” and “Non-Employee Director Compensation” and compensation to other executive officers that would have been disclosed in that section if such executive officers had been a NEO, we describe below transactions and series of similar transactions, since January 1, 2022, with respect to which we were a party, will be a party, or otherwise benefited, in which the amount involved exceeded or will exceed the lesser of (i) \$120,000 or (ii) 1% of the average of our total assets as of December 31, 2022 and 2023, and in which any of our directors, executive officers or holders of more than 5% of any class of our share capital at the time of such transaction, or any members of their immediate family, had or will have a direct or indirect material interest.

We believe that the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, in arm’s-length transactions.

Employment Arrangements

We have entered into employment agreements with our executive officers. Each of our executive officers has entered into a written employment agreement with us that provides for payment of base salary, target annual cash incentive compensation, eligibility for employee benefit programs and potential severance benefits. For more information regarding these agreements with our named executive officers, see “Executive Compensation.”

Severance Arrangements

The employment agreements we have entered into with our executive officers provide for certain severance arrangements. For more information regarding these arrangements with our named executive officers, see “Executive Compensation—Potential Payments upon Termination or Change of Control.”

Equity Awards Granted to Executive Officers and Directors

We have granted options and restricted share units to our executive officers and directors. For more information regarding the equity awards granted to our named executive officers and directors, see “Executive Compensation” and “Non-Employee Director Compensation.”

Indemnification Agreements

We have entered into separate indemnity agreements with each of our directors and officers, in addition to the indemnification provided for in our Bylaws. These indemnity agreements provide our directors and executive officers with contractual rights to indemnification and, in some cases, expense advancement in any action or proceeding arising out of their services as one of our directors or executive officers or as a director or executive officer of any other company or enterprise to which the person provides services at our request. We believe that these agreements are necessary to attract and retain qualified persons as our officers and directors. We also maintain directors’ and officers’ liability insurance. For more information regarding these indemnity agreements, see “Executive Compensation—Limitations on Liability and Indemnification Matters.”

Related Person Transaction Policy

In June 2020, we adopted a written related party transaction policy that sets forth our procedures for the identification, review, consideration and approval or ratification of related party transactions. For purposes of this policy only, a “related person transaction” is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any related person are participants involving an amount that exceeds \$120,000. Transactions involving compensation for services provided to us as an employee,

consultant or director are not considered related-person transactions under this policy. A “related person” is any executive officer, director, nominee to become a director or a holder of more than 5% of our share capital, or any affiliate or member of the immediate family of the foregoing.

Under the policy, where a transaction has been identified as a related-person transaction, management will be required to present information regarding the proposed related-person transaction to our audit committee or, where review by our audit committee would be inappropriate due to a conflict of interest, to another independent body of our board of directors, for review. The presentation will need to include a description of, among other things, all of the parties, the direct and indirect interests of the related persons, the purpose of the transaction, the material facts, the benefits of the transaction to us and whether any alternative transactions are available, an assessment of whether the terms are comparable to the terms available from unrelated third parties and management’s recommendation. To identify related-person transactions in advance, we will rely on information supplied by our executive officers, directors and certain significant shareholders. In considering related-person transactions, our audit committee or another independent body of our board of directors will take into account the relevant available facts and circumstances including, but not limited to:

- the risks, costs and benefits to us;
- the impact on a director’s independence in the event that the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties or to or from employees generally.

In the event a director has an interest in the proposed transaction, the director is expected to recuse himself or herself from the deliberations and approval process.

Although we did not have a written policy for the review and approval of transactions with related persons prior to our IPO, our board of directors has historically reviewed and approved any transaction where a director or officer had a financial interest, including the transactions described above. Prior to approving such a transaction, the material facts as to a director’s or officer’s relationship or interest in the agreement or transaction were disclosed to our board of directors. Our board of directors took this information into account when evaluating the transaction and in determining whether such transaction was fair to us and in the best interest of all our shareholders.

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for notices of internet availability of proxy materials or other annual meeting materials with respect to two or more shareholders sharing the same address by delivering a single notice of internet availability of proxy materials or other annual meeting materials addressed to those shareholders. This process, which is commonly referred to as “householding,” potentially means extra convenience for shareholders and cost savings for companies.

This year, a number of brokers with account holders who are our shareholders will be “householding” our proxy materials. A single Notice of Internet Availability of Proxy Materials will be delivered to multiple shareholders sharing an address unless contrary instructions have been received from the affected shareholders. Once you have received notice from your broker that they will be “householding” communications to your address, “householding” will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in “householding” and would prefer to receive a separate Notice of Internet Availability of Proxy Materials, please notify your broker or us. Direct your written request to our Secretary c/o Repare Therapeutics Inc., 7171 Frederick-Banting, Building 2, Suite 270, St-Laurent, Québec, Canada H4S 1Z9, Attention: Secretary or via email at investor@reparerx.com. Shareholders who currently receive multiple copies of the Notices of Internet Availability of Proxy Materials at their addresses and would like to request “householding” of their communications should contact their brokers.

OTHER MATTERS

Our board of directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors,



Steve Forte

Executive Vice President, Chief Financial Officer

April 26, 2024

We have filed our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 with the SEC and Canadian securities regulatory authorities. It is available free of charge at the SEC's website at www.sec.gov and on SEDAR+ at www.sedarplus.ca. Shareholders can also access this proxy statement and our 2023 Annual Report on Form 10-K at ir.reparerx.com. A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 is also available without charge by written request to our Secretary at c/o Repare Therapeutics Inc., 7171 Frederick-Banting, Building 2, Suite 270, St-Laurent, Québec, Canada H4S 1Z9, Attention: Secretary or via email at investor@reparerx.com.

Your vote matters!



Have your ballot ready and please use one of the methods below for **easy voting**:

Your control number _____

Have the 12 digit control number located in the box above available when you access the website and follow the instructions.

Scan QR for digital voting

Repare Therapeutics Inc.

Annual Meeting of Shareholders

For Shareholders of record as of April 19, 2024
Monday, June 17, 2024 10:00 AM, Eastern Time

Annual Meeting to be held live via the internet - please visit
www.proxydocs.com/RPTX for more details.

YOUR VOTE IS IMPORTANT!
PLEASE VOTE BY: 10:00 AM, Eastern Time, June 17, 2024.

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

The undersigned hereby appoints Lloyd Segal and Steve Forte (the "Named Proxies"), and each or either of them, OR Print the name and e-mail of the person you are appointing if this person is someone other than the Named Proxies listed herein, as the true and lawful attorneys of the undersigned, with full power of substitution and revocation, and authorizes such person or them, and each of them, as applicable, to vote all the shares in the share capital of Repare Therapeutics Inc. (the "Company") which the undersigned is entitled to vote at said meeting and any adjournment thereof upon the matters specified and upon such other matters as may be properly brought before the meeting or any adjournment thereof, conferring authority upon such true and lawful attorneys to vote in their discretion on such other matters as may properly come before the meeting and revoking any proxy heretofore given.

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

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

Every holder has the right to appoint some other person or company of their choice, who need not be a holder, to attend and act on their behalf at the meeting or any adjournment or postponement thereof. If you wish to appoint a person or company other than the persons whose names are printed herein, please insert the name of your chosen proxyholder in the space provided (see above) and follow the instructions set forth herein to return your proxy card by mail. Proxies must be received by 10:00 AM, Eastern Time, on June 14, 2024.

The securities represented by this proxy will be voted in favor or withheld from voting or voted against each of the matters described herein, as applicable, in accordance with the instructions of the holder, on any ballot that may be called for and, if the holder has specified a choice with respect to any matter to be acted on, the securities will be voted accordingly.

This proxy should be read in conjunction with the proxy statement for the 2024 Annual Meeting of Shareholders of the Company.

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



Internet:

www.proxypush.com/RPTX

- Cast your vote online
- **Have your Proxy Card ready**
- Follow the simple instructions to record your vote



Phone:

1-866-858-9058

- Use any touch-tone telephone
- **Have your Proxy Card ready**
- Follow the simple recorded instructions



Mail:

- Mark, sign and date your Proxy Card
- Fold and return your Proxy Card in the postage-paid envelope provided
- Mail is the only method by which a holder may return their Proxy Card to appoint a person as proxyholder other than the Named Proxies

Please make your marks like this:

THE BOARD OF DIRECTORS RECOMMENDS A VOTE **FOR** EACH OF THE DIRECTOR NOMINEES LISTED IN PROPOSAL 1 AND **FOR** PROPOSALS 2 AND 3

PROPOSAL	YOUR VOTE		BOARD OF DIRECTORS RECOMMENDS
1. To elect the two nominees of our board of directors, Susan M. Molineaux, Ph.D. and Ann D. Rhoads, to our board of directors as Class I directors, each to hold office until our Annual Meeting of Shareholders in 2027 and until such director's successor has been duly elected, or if sooner, until the director's death, resignation or removal. 1.01 Susan M. Molineaux, Ph.D.	FOR <input type="checkbox"/>	WITHHOLD <input type="checkbox"/>	↓ FOR
	1.02 Ann D. Rhoads <input type="checkbox"/>	<input type="checkbox"/>	
2. To approve, on an advisory basis, the compensation of our named executive officers, as disclosed in the accompanying proxy statement.	FOR <input type="checkbox"/>	AGAINST <input type="checkbox"/>	FOR
3. To appoint Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2024, and to authorize our board of directors to fix Ernst & Young LLP's remuneration.	FOR <input type="checkbox"/>	WITHHOLD <input type="checkbox"/>	FOR
NOTE: To conduct any other business properly brought before the Annual Meeting.			

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

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

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

Signature (and Title if applicable)

Date

Signature (if held jointly)

Date