SCHEDULE 14A INFORMATION

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

Filed by the Registrant \boxtimes

Filed by a Party other than the Registrant \Box

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 the appropriate box)

- ☑ 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.



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

Repare Therapeutics Inc. Important Notice Regarding the Availability of Proxy Materials

Shareholders Meeting to be held on May 13, 2022

For Shareholders of record as of March 21, 2022

This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. This is not a ballot. You cannot use this notice to vote your shares. We encourage you to access and review all of the important information contained in the proxy materials before voting. To appoint a third party proxyholder, a shareholder of record must return its proxy card by mail in accordance with the instructions provided in the proxy materials by no later than by 10:00 A.M., Eastern Time, on May 11, 2022.

To view the proxy materials, and to obtain directions to attend the meeting, go to: www.proxydocs.com/RPTX $\,$

To vote your proxy while visiting this site, you will need the 12 digit control number in the box below.

Under United States Securities and Exchange Commission rules, proxy materials do not have to be delivered in paper. Proxy materials can be distributed by making them available on the internet.



For a convenient way to view proxy materials and VOTE go to www.proxydocs.com/RPTX

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

If you want to receive a paper or e-mail copy of the proxy materials, you must request one. There is no charge to you for requesting a copy. In order to receive a paper package in time for the deadline to submit voting instructions, as applicable, and this year's meeting, you must make this request on or before 5:00 PM, Eastern Time, on May 3, 2022.

To order paper materials, use one of the following methods.



When requesting via the Internet or telephone you will need the 12 digit control number located in the shaded box above.

* If requesting material by e-mail, please send a blank e-mail with the 12 digit control number (located above) in the subject line. No other requests, instructions OR other inquiries should be included with your e-mail requesting material.

Repare Therapeutics Inc. Meeting Type: Annual Meeting of Shareholders Date: Friday, May 13, 2022 Time: 4:00 PM, Eastern Time Place: Annual Meeting to be held live via live webcast - please visit www.proxydocs.com/RPTX for more details. For information about this notice, please call (888) 464-5457. You must pre-register to attend the meeting online and/or participate at www.proxydocs.com/RPTX. SEE REVERSE FOR FULL AGENDA

Repare Therapeutics Inc. Annual Meeting of Shareholders

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

PROPOSAL

- 1. To elect three Class II directors to our Board of Directors, each to hold office until our Annual Meeting of Shareholders in 2025. The Board of Directors intends to present for election the following three current director nominees as Class II directors:
 - 1.01 David Bonita, M.D.
 - 1.02 Thomas Civik
 - 1.03 Carol A. Schafer
- 2. To approve, on a non-binding, advisory basis, the compensation of our named executive officers;
- 3. To recommend, on a non-binding, advisory basis, the preferred frequency of future advisory votes on compensation of our named executive officers;
- 4. To appoint Ernst & Young LLP as our independent registered public accounting firm (the "auditor") for the fiscal year ending December 31, 2022, and to authorize the Board of Directors to fix the auditor's remuneration; and
- 5. To conduct any other business properly brought before the Annual Meeting.

For additional information, see "Proposal 1: Election of Directors", "Proposal 2: Advisory Vote On Executive Compensation", "Proposal 3: Advisory Vote on the Frequency of Solicitation of Advisory Shareholder Approval of Executive Compensation", and "Proposal 4: Ratification of Selection of Independent Registered Public Accounting Firm" of the proxy statement for the 2022 Annual Meeting of Shareholders of Repare Therapeutics Inc.