

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL	
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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>Bonita David P</u> <hr/> (Last) (First) (Middle) <u>C/O REPARE THERAPEUTICS INC.</u> <u>7210 FREDERICK-BANTING,</u> <u>SUITE 100</u> <hr/> (Street) <u>ST-</u> <u>LAURENT A8 H4S 2A1</u> <hr/> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) <u>06/18/2020</u>	3. Issuer Name and Ticker or Trading Symbol <u>Repare Therapeutics Inc. [RPTX]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year)
		6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person	

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
<u>Class B Preferred Shares</u>	<u>(1)</u>	<u>(1)</u>	<u>Common Shares</u>	<u>2,601,325</u>	<u>(1)</u>	<u>I</u>	<u>See Footnote⁽²⁾</u>

Explanation of Responses:

- Each Class B Preferred Share is convertible at any time, at the holder's election, into Common Shares, on a one-for-one basis, has no expiration date and will convert into Common Shares upon the closing of the Issuer's initial public offering.
- These securities are held of record by OrbiMed Private Investments VII, LP ("OPI VII"). OrbiMed Capital GP VII LLC ("OrbiMed GP VII") is the general partner of OPI VII and OrbiMed Advisors LLC ("OrbiMed Advisors") is the managing member of OrbiMed GP VII. The Reporting Person is a member of OrbiMed Advisors. By virtue of such relationships, OrbiMed GP VII and OrbiMed Advisors may be deemed to have voting power and investment power over the securities held by OPI VII and as a result, may be deemed to have beneficial ownership over such securities. OrbiMed Advisors exercises voting and investment power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the shares held by OPI VII.

Remarks:

/s/ Steve Forte, Attorney- 06/18/2020
in-Fact

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 5 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

POWER OF ATTORNEY

(For Executing Form ID and Forms 3, 4 and 5)

Know all by these presents, that the undersigned hereby constitutes and appoints each of Lloyd M. Segal and Steve Forte of Repare Therapeutics Inc. (the "Company") and Divakar Gupta, Courtney Thorne, Trey Reilly and Jason Minio of Cooley LLP, signing individually, the undersigned's true and lawful attorneys-in fact and agents to:

(1) Prepare, execute in the undersigned's name and on the undersigned's behalf, and submit to the Securities and Exchange Commission (the "SEC"), a Form ID and Forms 3, 4 and 5 (including amendments thereto and joint filing agreements in connection therewith) in accordance with Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules thereunder, in the undersigned's capacity as an officer, director or beneficial owner of more than 10% of a registered class of securities of the Company;

(2) Do and perform any and all acts for and on behalf of the undersigned that may be necessary or desirable to prepare and execute any such Form ID and Forms 3, 4 or 5 (including amendments thereto and joint filing agreements in connection therewith) and file such forms with the SEC and any stock exchange, self-regulatory association or any similar authority; and

(3) Take any other action of any type whatsoever in connection with the foregoing that, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required of the undersigned, it being understood that the documents executed by the attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as the attorney-in-fact may approve in the attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney in fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney in fact, or such attorney in fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, and their substitutes, in serving in such capacity at the request of the undersigned, are not assuming (nor is the Company assuming) any of the undersigned's responsibilities to comply with Section 16 of the Exchange Act.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the Company and the foregoing attorneys-in fact or (c) as to any attorney-in-fact individually, until such attorney-in-fact is no longer employed by the Company or employed by or a partner at Cooley LLP or another law firm representing the Company, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of the date written below.

Date: June 15, 2020
/s/ David Bonita, M.D.
David Bonita, M.D.