

OMB APPROVAL	
OMB Number:	3235-0104
Estimated average burden hours per response:	0.5

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>ORBIMED ADVISORS LLC</u> <hr/> (Last) (First) (Middle) 601 LEXINGTON AVENUE 54TH FLOOR <hr/> (Street) NEW YORK NY 10022 <hr/> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 06/18/2020	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) Form filed by One Reporting Person <input checked="" type="checkbox"/> 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			
Class B Preferred Shares	(1)	(1)	Common Shares	2,601,325	(1)	I	See Footnote ⁽²⁾

1. Name and Address of Reporting Person* <u>ORBIMED ADVISORS LLC</u> <hr/> (Last) (First) (Middle) 601 LEXINGTON AVENUE 54TH FLOOR <hr/> (Street) NEW YORK NY 10022 <hr/> (City) (State) (Zip)

1. Name and Address of Reporting Person* <u>OrbiMed Capital GP VII LLC</u> <hr/> (Last) (First) (Middle) 601 LEXINGTON AVENUE, 54TH FLOOR <hr/> (Street) NEW YORK NY 10022 <hr/> (City) (State) (Zip)

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. 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:

OrbiMed Advisors LLC,
By: /s/ Douglas Coon, 06/18/2020
Chief Compliance Officer

OrbiMed Capital GP VII
LLC, By: /s/ Douglas 06/18/2020
Coon, Chief Compliance
Officer

** Signature of Reporting Date
Person

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.