

OMB APPROVAL	
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

1. Name and Address of Reporting Person* <u>ORBIMED ADVISORS LLC</u> (Last) (First) (Middle) 601 LEXINGTON AVENUE 54TH FLOOR (Street) NEW YORK NY 10022 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Repare Therapeutics Inc. [RPTX]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 06/23/2020	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	06/23/2020		C ⁽¹⁾		2,601,325	A	(1)	2,601,325	I	See Footnotes ⁽²⁾⁽³⁾
Common Stock	06/23/2020		P		675,000	A	\$20	3,276,325	I	See Footnotes ⁽²⁾⁽³⁾
Common Stock	06/23/2020		P		99,200	A	\$20	99,200	I	See Footnote ⁽³⁾⁽⁴⁾

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Code	V	(A)	(D)	Date Exercisable	Expiration Date						Title
Class B Preferred Shares	(1)	06/23/2020		C ⁽¹⁾		2,601,325		(1)	(1)	Common Shares	2,601,325	(1)	0	I	See Footnotes ⁽²⁾⁽³⁾

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

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

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

(Street)		
NEW YORK	NY	10022
(City)	(State)	(Zip)

Explanation of Responses:

- Each Series B Preferred Share converted into the same number of Common Shares upon the closing of the Issuer's initial public offering and had no expiration date.
- 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 Capital LLC ("OrbiMed Capital") is a relying advisor of OrbiMed Advisors. OrbiMed Advisors and OrbiMed Capital exercise voting and investment power through a management committee comprised of the Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the shares held by OPI VII.
- This report on Form 4 is jointly filed by OrbiMed Advisors, OrbiMed Capital, and OrbiMed GP VII. Each of the Reporting Persons disclaims beneficial ownership of the securities reported herein for purposes of Rule 16a-1(a) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), except to the extent of its pecuniary interest therein, if any. The Reporting Persons have designated a representative, David Bonita ("Bonita"), a member of OrbiMed Advisors, to serve on the Issuer's board of directors. This report shall not be deemed an admission that any such entity or person is a beneficial owner of such securities for purpose of Section 16 of the Exchange Act, or for any other purpose.
- These securities are held of record by OrbiMed Partners Master Fund Limited ("OPM"). OrbiMed Capital is the investment advisor to OPM. OrbiMed Capital is a relying advisor of OrbiMed Advisors. OrbiMed Advisors and OrbiMed Capital exercise voting and investment power through a management committee comprised of the Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the shares held by OPM.

Remarks:

/s/ OrbiMed Advisors LLC, By:
/s/ Douglas Coon, Chief 06/25/2020
Compliance Officer

/s/ OrbiMed Capital GP VII
LLC, By: /s/ Douglas Coon, 06/25/2020
Chief Compliance Officer

/s/ OrbiMed Capital LLC, By: /s/
Douglas Coon, Chief 06/25/2020
Compliance Officer

** 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 4 (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.