

OMB APPROVAL	
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

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>MPM BioVentures 2014, L.P.</u> (Last) (First) (Middle) C/O MPM CAPITAL 450 KENDALL STREET (Street) CAMBRIDGE MA 02142 (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) Director <input checked="" type="checkbox"/> 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 Shares	06/23/2020		C		1,801,581	A	(1)	1,801,581	I	See Footnote ⁽²⁾⁽³⁾
Common Shares	06/23/2020		C		952,191	A	(1)	2,753,772	I	See Footnote ⁽³⁾⁽⁴⁾
Common Shares	06/23/2020		P		250,000 ⁽⁵⁾	A	\$20	3,003,772	I	See Footnote ⁽³⁾⁽⁶⁾

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	Amount or Number of Shares				
Class A Preferred Shares	(1)	06/23/2020		C		1,801,581	(1)	(1)	Common Shares	1,801,581	\$0.00	0	I	See Footnote ⁽⁷⁾	
Class B Preferred Shares	(1)	06/23/2020		C		952,191	(1)	(1)	Common Shares	952,191	\$0.00	0	I	See Footnote ⁽⁷⁾	

1. Name and Address of Reporting Person*
MPM BioVentures 2014, L.P.
 (Last) (First) (Middle)
 C/O MPM CAPITAL
 450 KENDALL STREET
 (Street)
 CAMBRIDGE MA 02142
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
MPM Asset Management Investors BV2014 LLC
 (Last) (First) (Middle)
 C/O MPM CAPITAL
 450 KENDALL STREET
 (Street)
 CAMBRIDGE MA 02142
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
MPM BioVentures 2014 (B), L.P.

(Last)	(First)	(Middle)
C/O MPM CAPITAL 450 KENDALL STREET		
(Street)		
CAMBRIDGE	MA	02142
(City) (State) (Zip)		
1. Name and Address of Reporting Person*		
MPM BioVentures 2014 LLC		
(Last) (First) (Middle)		
C/O MPM CAPITAL 450 KENDALL STREET		
(Street)		
CAMBRIDGE	MA	02142
(City) (State) (Zip)		
1. Name and Address of Reporting Person*		
MPM BioVentures 2014 GP LLC		
(Last) (First) (Middle)		
C/O MPM CAPITAL 450 KENDALL STREET		
(Street)		
CAMBRIDGE	MA	02142
(City) (State) (Zip)		
1. Name and Address of Reporting Person*		
EVNIN LUKE		
(Last) (First) (Middle)		
C/O MPM CAPITAL 450 KENDAL STREET		
(Street)		
CAMBRIDGE	MA	02142
(City) (State) (Zip)		

Explanation of Responses:

1. All series of convertible preferred shares converted into the number of shares of the Issuer's common shares on a 1-for-1 basis, for no additional consideration, immediately prior to the closing of the Issuer's initial public offering and had no expiration date.
2. The shares are held as follows: 1,636,136 by MPM BioVentures 2014, L.P. ("BV 2014"), 109,128 by MPM BioVentures 2014(B), L.P. ("BV 2014(B)") and 56,317 by MPM Asset Management Investors BV2014 LLC ("AM BV2014"). MPM BioVentures 2014 GP LLC and MPM BioVentures 2014 LLC ("BV LLC") are the direct and indirect general partners of BV 2014 and BV 2014(B). Luke Evnin, Ansbert Gadicke and Todd Foley are the managing directors of BV LLC and members of AM BV2014.
3. The Reporting Persons disclaim beneficial ownership of the securities except to the extent of his or its respective pecuniary interest therein.
4. The shares are held as follows: 2,500,885 by BV 2014, 166,805 by BV 2014(B) and 86,082 by AM BV2014.
5. The shares were purchased as follows: 227,042 by BV 2014, 15,143 by BV 2014(B) and 7,815 by AM BV2014.
6. The shares are held as follows: 2,727,927 by BV 2014, 181,948 by BV 2014(B) and 93,897 by AM BV2014.
7. No securities held by the Reporting Persons.

Remarks:

[/s/ Ansbert Gadicke, managing director of MPM BioVentures 2014 LLC, the managing member of MPM BioVentures 2014 GP LLC, the general partner of MPM BioVentures 2014, L.P.](#) 06/25/2020

[/s/ Howard Rubin, director of MPM Asset Management Investors BV2014 LLC](#) 06/25/2020

[/s/ Ansbert Gadicke, managing director of MPM BioVentures 2014 LLC, the managing member of MPM BioVentures 2014 GP LLC, the general partner of MPM BioVentures 2014\(B\), L.P.](#) 06/25/2020

[/s/ Ansbert Gadicke, managing director of MPM BioVentures 2014 LLC](#) 06/25/2020

[/s/ Ansbert Gadicke, managing](#) 06/25/2020

[director of MPM BioVentures
2014 LLC, the managing
member of MPM BioVentures
2014 GP LLC](#)

[/s/ Luke Evnin](#)

[06/25/2020](#)

** 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.