

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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

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. 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) 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 A Preferred Shares	(1)	(1)	Common Stock	1,801,581	0.00 ⁽¹⁾	I	See Footnote ⁽²⁾⁽³⁾
Class B Preferred Shares	(1)	(1)	Common Stock	952,191	0.00 ⁽¹⁾	I	See Footnote ⁽²⁾⁽⁴⁾

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)
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1. Name and Address of Reporting Person* <u>EVNIN LUKE</u> _____ (Last) (First) (Middle) C/O MPM CAPITAL 450 KENDAL 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 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 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)

Explanation of Responses:

1. All series of convertible preferred shares will convert into the number of shares of the Issuer's common stock on a 1-for-1 basis, for no additional consideration, immediately prior to the closing of the Issuer's initial public offering and have no expiration date.
2. Each Reporting Person disclaims beneficial ownership of the securities except to the extent of his or its pecuniary interest therein.
3. 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. ("BV2014(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 members of BV LLC.
4. The shares are held as follows: 864,749 by BV 2014, 57,677 by BV 2014(B) and 29,765 by AM BV2014.

Remarks:

/s/ Ansbert Gadicke, 06/18/2020
managing director of
MPM BioVentures 2014
LLC, the general partner
of MPM BioVentures 2014
GP LLC, the general

<u>partner of MPM BioVentures 2014, L.P.</u>	
<u>/s/ Luke Evin</u>	<u>06/18/2020</u>
<u>/s/ Ansbert Gadicke, managing director of MPM BioVentures 2014 LLC, the general partner of MPM BioVentures 2014 GP LLC, the general partner of MPM BioVentures 2014 (B), L.P.</u>	<u>06/18/2020</u>
<u>/s/ Howard Rubin, director of MPM Asset Management Investors BV2014 LLC</u>	<u>06/18/2020</u>
<u>/s/ Ansbert Gadicke, managing director of MPM BioVentures 2014 LLC</u>	<u>06/18/2020</u>
<u>/s/ Ansbert Gadicke, managing director of MPM BioVentures 2014 LLC, the general partner of MPM BioVentures 2014 GP LLC</u>	<u>06/18/2020</u>

** Signature of Reporting Person	Date
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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.