FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL 3235-0287 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

Name and Address of Reporting Person* GADICKE ANSBERT					2. Issuer Name and Ticker or Trading Symbol Repare Therapeutics Inc. [RPTX]								Relationship of Reporting Person(s) to Issuer (Check all applicable) Director X 10% Owner Officer (give title below) Other (specify below)					
(Last) (First) (Middle) C/O MPM CAPITAL				3. Date of Earliest Transaction (Month/Day/Year) 05/18/2021														
450 KENDALL STREET				4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person						
(Street) CAMBRIDGE MA 02142																		
(City)	tivo (Coour	itioo	Λοσ:	uirad	Die	nood a	of or	Bonof	lioio	Illy Own	o.d						
1. Title of S	2. Transaction Date (Month/Day/Year	2A. Deemed Execution Date,		I Date,	3. Transaction Code (Instr.		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 a				5. Amount of Securities Beneficially Owned Following		nt of s ully	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)		7. Nature of Indirect Beneficial Ownership (Instr. 4)		
							Code	v	Am	ount	(A) or (D)	Price		Reported Transacti (Instr. 3 a	ion(s)			
Common	Shares		05/18/2021				S ⁽¹⁾		14	,773(2)	D	\$33.	9(3)	4,658	,065		I	See Footnote ⁽⁴⁾
Common Shares			05/18/2021				S ⁽¹⁾		8,	.541 ⁽⁵⁾	D	\$34.61 ⁽⁶⁾		4,649,524			I	See Footnote ⁽⁷⁾
Common Shares			05/18/2021				S ⁽¹⁾			90(8)	D	\$35.14		4,649,434			I See Footnote	
Common Shares			05/18/2021				J ⁽¹⁾⁽¹⁰⁾		2	1,834	D	\$0.00(10)		4,627,600		:	I See Footnote(1	
Common Shares			05/19/2021				S ⁽¹⁾		9,	143 ⁽¹²⁾	D	D \$34.23 ⁽¹³⁾		4,618,457		1 I		See Footnote ⁽¹⁴⁾
Common Shares			05/19/2021				S ⁽¹⁾		4,	400 ⁽¹⁵⁾	D	D \$35 ⁽¹⁶⁾		4,614,057				See Footnote ⁽¹⁷⁾
Common Shares			05/20/2021				S ⁽¹⁾		9,	357 ⁽¹⁸⁾	D	D \$34.66 ⁽¹⁹⁾		4,604,700				See Footnote ⁽²⁰⁾
Common Shares 05/20/20			05/20/2021				S ⁽¹⁾		6	600 ⁽²¹⁾ D		\$35.19(22)		4,604,100		I		See Footnote ⁽²³⁾
		Ta	ble II - Derivati (e.g., pu											y Owne	d			
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security		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)		Expirati	ion Da	exercisable and in Date Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Ins 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Numb derivativ Securitie Benefici Owned Followin Reporter Transact (Instr. 4)	re es ally g d tion(s)	10. Owners Form: Direct (I or Indirect) (I) (Instr	Beneficial Ownership ect (Instr. 4)
				Code	v	(A)	(D)	Date Exercisa	able	Expiration Date	n Title	Amou or Numb of Share	oer					

Explanation of Responses:

- 1. Transaction effected pursuant to a plan established pursuant to Rule 10b5-1 on 3/31/2021.
- 2. The shares were sold as follows: 6,292 by MPM BioVentures 2014, L.P. ("BV 2014"), 217 by MPM Asset Management Investors BV2014 LLC ("AM BV2014") and 8,264 by UBS Oncology Impact Fund L.P. ("UBS Oncology").
- 3. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$33.06 to \$34.05 inclusive. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.
- 4. The shares are held as follows: 2,357,748 by BV 2014, 157,677 by MPM BioVentures 2014(B), L.P. ("BV 2014(B)"), 81,155 by AM BV2014 and 2,061,485 by UBS Oncology. 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). BV LLC is the manager of AM BV2014. Ansbert Gadicke is a managing director of BV LLC. MPM Oncology Impact Management GP LLC ("Oncology GP LLC") is the General Partner of MPM Oncology Impact Management LP, the General Partner of Oncology Impact Fund (Cayman) Management L.P., the General Partner of UBS Oncology Impact Fund, L.P. Ansbert Gadicke is the Managing Member of Oncology GP LLC. The Reporting Person disclaims beneficial ownership of the securities except to the extent of his pecuniary interest therein.
- 5. The shares were sold as follows: 3,638 by BV 2014, 125 by AM BV2014 and 4,778 by UBS Oncology.
- $6. \ The price reported in Column \ 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$34.07 to \$35.01 inclusive. The Reporting Person undertakes to $4.00 inclusive and $4.00 inclusive are sold in the price reported in Column \ 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \34.07 to \$35.01 inclusive. The Reporting Person undertakes to \$4.00 inclusive are sold in the price reported in Column \ 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$4.00 inclusive. The Reporting Person undertakes to \$4.00 inclusive are sold in the price reported in \$4.00 inclusive are sold in the \$4.00 inclusive are sold in the \$4.00 inclusive are sold in \$4.00 inclusive are sold in the \$4.00 inclusive are sold in the \$4.00 inclusive are sold in \$4.00 inclu provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price
- 7. The shares are held as follows: 2,354,110 by BV 2014, 157,677 by BV 2014(B), 81,030 by AM BV2014 and 2,056,707 by UBS Oncology. The Reporting Person disclaims beneficial ownership of the

securities except to the extent of his pecuniary interest therein.

- 8. The shares were sold as follows: 39 by BV 2014, 1 by AM BV2014 and 50 by UBS Oncology.
- 9. The shares are held as follows: 2,354,071 by BV 2014, 157,677 by BV 2014(B), 81,029 by AM BV2014 and 2,056,657 by UBS Oncology. The Reporting Person disclaims beneficial ownership of the securities except to the extent of his pecuniary interest therein.
- 10. Represents a pro rata in-kind distribution from BV 2014(B) to its limited partners for no consideration.
- 11. The shares are held as follows: 2,354,071 by BV 2014, 135,843 by BV 2014(B), 81,029 by AM BV2014 and 2,056,657 by UBS Oncology. The Reporting Person disclaims beneficial ownership of the securities except to the extent of his pecuniary interest therein.
- 12. The shares were sold as follows: 3,895 by BV 2014, 134 by AM BV2014 and 5,114 by UBS Oncology.
- 13. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$33.70 to \$34.64 inclusive. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.
- 14. The shares are held as follows: 2,350,176 by BV 2014, 135,843 by BV 2014(B), 80,895 by AM BV2014 and 2,051,543 by UBS Oncology. The Reporting Person disclaims beneficial ownership of the securities except to the extent of his pecuniary interest therein.
- 15. The shares were sold as follows: 1.874 by BV 2014, 65 by AM BV2014 and 2,461 by UBS Oncology,
- 16. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$34.74 to \$35.25 inclusive. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.
- 17. The shares are held as follows: 2,348,302 by BV 2014, 135,843 by BV 2014(B), 80,830 by AM BV2014 and 2,049,082 by UBS Oncology. The Reporting Person disclaims beneficial ownership of the securities except to the extent of his pecuniary interest therein.
- 18. The shares were sold as follows: 3,985 by BV 2014, 137 by AM BV2014 and 5,235 by UBS Oncology.
- 19. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$34.10 to \$35.04 inclusive. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.
- 20. The shares are held as follows: 2,344,317 by BV 2014, 135,843 by BV 2014(B), 80,693 by AM BV2014 and 2,043,847 by UBS Oncology. The Reporting Person disclaims beneficial ownership of the securities except to the extent of his pecuniary interest therein.
- 21. The shares were sold as follows: 256 by BV 2014, 9 by AM BV2014 and 335 by UBS Oncology.
- 22. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$35.14 to \$35.22 inclusive. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.
- 23. The shares are held as follows: 2,344,061 by BV 2014, 135,843 by BV 2014(B), 80,684 by AM BV2014 and 2,043,512 by UBS Oncology. The Reporting Person disclaims beneficial ownership of the securities except to the extent of his pecuniary interest therein.

Remarks:

/s/ Ansbert Gadicke 05/20/2021

** 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.

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