FORM 4

to Section 16. Form 4 or Form 5 obligations may continue. See

Instruction 1(b).

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Check this box if no longer subject

## 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

1. 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					
(Last) (First) (Middle) C/O MPM CAPITAL 450 KENDALL STREET			3. Date of Earliest Transaction (Month/Day/Year) 06/24/2021							Officer (give title Other (specify below) below)					
(Street) CAMBRIDGE MA 021 (City) (State) (Zip)	4. If Amendment, Date of Original Filed (Month/Day/Year)								Individual or Joint/Group Filing (Check Applicable Line)     X Form filed by One Reporting Person     Form filed by More than One Reporting Person						
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned															
1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Ye	ar) E>	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 ar			Beneficially Owned Following		6. Ownership Form: Direct (D) or Indirect (I)		7. Nature of Indirect Beneficial Ownership	
					Code	e V	Amount	(A) or (D)	Price	Reporte Transac (Instr. 3	tion(s)	(Instr.	4)	(Instr. 4)	
Common Shares 06/24/2021		1			S <sup>(1)</sup>	)	6,121(2)	D	\$33.53	(3) 3,98	3,986,331		I	See Footnote <sup>(4)</sup>	
Common Shares	06/25/2021	.1			S <sup>(1)</sup>	)	22,567 <sup>(5)</sup>	D	\$33.51	1(6) 3,963,764		I		See Footnote <sup>(7)</sup>	
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  Security  3. Transaction Date (Month/Day/Year) if any (Month/Day/Y		4. Transaction Code (Instr. 8)		5. Numb of Derivati Securiti Acquire (A) or Dispose of (D) (Instr. 3, and 5)	ve (Mes d	i. Date E) Expiration Month/Da		7. Titl Amou Secur Unde Deriv Secur 3 and	int of rities rlying ative rity (Instr.	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)		10. Ownersh Form: Direct (D or Indirec (I) (Instr.	Beneficial Ownership ct (Instr. 4)	
Explanation of Responses:		Code	v	(A) (E		Date Exercisal	Expiration ole Date	Title	Amount or Number of Shares						

- 1. Transaction effected pursuant to a plan established pursuant to Rule 10b5-1 on 3/31/2021.
- 2. The shares were sold as follows: 2,607 by MPM BioVentures 2014, L.P. ("BV 2014"), 90 by MPM Asset Management Investors BV2014 LLC ("AM BV2014") and 3,424 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 \$33.11 to \$33.90 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: 2,080,922 by BV 2014, 135,843 by MPM BioVentures 2014(B), L.P. ("BV 2014(B)"), 71,625 by AM BV2014 and 1,697,941 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: 9,612 by BV 2014, 331 by AM BV2014 and 12,624 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 \$33.10 to \$33.98 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.
- 7. The shares are held as follows: 2,071,310 by BV 2014, 135,843 by BV 2014(B), 71,294 by AM BV2014 and 1,685,317 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

06/28/2021

\*\* 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.

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.