

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>RA CAPITAL MANAGEMENT, L.P.</u>			2. Issuer Name and Ticker or Trading Symbol <u>Vor Biopharma Inc. [VOR]</u>			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) <u>02/09/2021</u>			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person		
<u>200 BERKELEY STREET, 18TH FLOOR</u>			4. If Amendment, Date of Original Filed (Month/Day/Year)					
(Street) <u>BOSTON MA 02116</u>								
(City) (State) (Zip)								

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	02/09/2021		C		1,664,549	A	(1)	1,664,549	I	See footnote ⁽²⁾⁽⁴⁾
Common Stock	02/09/2021		C		280,330	A	(1)	280,330	I	See footnote ⁽³⁾⁽⁴⁾
Common Stock	02/09/2021		C		3,784,120	A	(1)	5,448,669	I	See footnote ⁽²⁾⁽⁴⁾
Common Stock	02/09/2021		C		1,414,026	A	(1)	1,694,356	I	See footnote ⁽³⁾⁽⁴⁾
Common Stock	02/09/2021		P		2,848,596	A	\$18	8,297,265	I	See footnote ⁽²⁾⁽⁴⁾
Common Stock	02/09/2021		P		130,970	A	\$18	1,825,326	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	Amount or Number of Shares				
Series A-2 Preferred Stock	(1)	02/09/2021		C		22,637,875		(1)	(1)	Common Stock	1,664,549	(1)	0	I	See footnote ⁽²⁾⁽⁴⁾
Series A-2 Preferred Stock	(1)	02/09/2021		C		3,812,500		(1)	(1)	Common Stock	280,330	(1)	0	I	See footnote ⁽³⁾⁽⁴⁾
Series B Preferred Stock	(1)	02/09/2021		C		51,464,036		(1)	(1)	Common Stock	3,784,120	(1)	0	I	See footnote ⁽²⁾⁽⁴⁾
Series B Preferred Stock	(1)	02/09/2021		C		19,230,770		(1)	(1)	Common Stock	1,414,026	(1)	0	I	See footnote ⁽³⁾⁽⁴⁾

1. Name and Address of Reporting Person*
RA CAPITAL MANAGEMENT, L.P.

(Last) (First) (Middle)
200 BERKELEY STREET, 18TH FLOOR

(Street)
BOSTON MA 02116

(City) (State) (Zip)

1. Name and Address of Reporting Person*
RA Capital Healthcare Fund LP

(Last) (First) (Middle)
200 BERKELEY STREET, 18TH FLOOR

(Street)	BOSTON	MA	02116
(City)	(State)	(Zip)	
1. Name and Address of Reporting Person*			
<u>Kolchinsky Peter</u>			
(Last)	(First)	(Middle)	
C/O RA CAPITAL MANAGEMENT, L.P. 200 BERKELEY STREET, 18TH FLOOR			
(Street)	BOSTON	MA	02116
(City)	(State)	(Zip)	
1. Name and Address of Reporting Person*			
<u>Shah Rajeev M.</u>			
(Last)	(First)	(Middle)	
C/O RA CAPITAL MANAGEMENT, L.P. 200 BERKELEY STREET, 18TH FLOOR			
(Street)	BOSTON	MA	02116
(City)	(State)	(Zip)	

Explanation of Responses:

- Each share of Series A-2 Preferred Stock and Series B Preferred Stock automatically converted into shares of Common Stock upon the closing of the Issuer's initial public offering for no additional consideration, on a 13.6-for-one basis, and had no expiration date.
- These securities are held directly by RA Capital Healthcare Fund, L.P. (the "Fund").
- These securities are held directly by RA Capital Nexus Fund, L.P. (the "Nexus Fund").
- RA Capital Management, L.P. (the "Adviser") is the investment manager for the Fund and the Nexus Fund. The general partner of the Adviser is RA Capital Management GP, LLC (the "Adviser GP"), of which Dr. Peter Kolchinsky and Mr. Rajeev Shah are the managing members. The Adviser, the Adviser GP, Dr. Kolchinsky and Mr. Shah disclaim beneficial ownership of any of the reported securities, except to the extent of their pecuniary interest therein.

/s/ Peter Kolchinsky, Manager of
RA Capital Management, L.P. 02/09/2021

/s/ Peter Kolchinsky, Manager of
RA Capital Healthcare GP, LLC
the General Partner of RA
Capital Healthcare Fund, L.P. 02/09/2021

/s/ Peter Kolchinsky, individually 02/09/2021

/s/ Rajeev Shah, individually 02/09/2021

** 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.