

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> (Last) (First) (Middle) 200 BERKELEY STREET, 18TH FLOOR (Street) BOSTON MA 02116 (City) (State) (Zip)	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)
	3. Date of Earliest Transaction (Month/Day/Year) 06/14/2022	
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 Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			

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
Stock Option (Right to Buy)	\$4.26	06/14/2022		A		16,911		(2)	06/13/2032	Common Stock	16,911	\$0.00	16,911	I	See footnote ⁽¹⁾ (2)(3)

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*
Kolchinsky Peter
 (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*

[Shah Rajeev M.](#)

(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:

1. RA Capital Management, L.P. (the "Adviser") is the investment manager for RA Capital Healthcare Fund, L.P. (the "Fund") and RA Capital Nexus Fund, L.P. (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.

2. This option was granted to Joshua Resnick, a Managing Director of the Adviser who serves on the Issuer's board of directors, pursuant to the Issuer's non-employee director compensation policy. The shares underlying the option vest and become exercisable on the earlier of (i) June 14, 2023 or (ii) the Issuer's next annual meeting of stockholders following the grant date, in each case, subject to Mr. Resnick's continued service as a director through such date.

3. Under Mr. Resnick's arrangement with the Adviser, Mr. Resnick holds the option for the benefit of the Fund and the Nexus Fund. Mr. Resnick is obligated to turn over to the Adviser any net cash or stock received upon exercise of the option, which will offset advisory fees owed by the Fund and the Nexus Fund to the Adviser. The Reporting Persons therefore disclaim beneficial ownership of the option and underlying common stock.

Remarks:

Mr. Joshua Resnick, a Managing Director of the Adviser, serves on the Issuer's board of directors.

[/s/ Peter Kolchinsky, Manager
of RA Capital Management,
L.P.](#) [06/17/2022](#)

[/s/ Peter Kolchinsky, Manager
of RA Capital Healthcare Fund
GP, LLC the General Partner of
RA Capital Healthcare Fund,
L.P.](#) [06/17/2022](#)

[/s/ Peter Kolchinsky,
individually.](#) [06/17/2022](#)

[/s/ Rajeev Shah, individually.](#) [06/17/2022](#)

** 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.