

OMB APPROVAL	
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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

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>RA CAPITAL MANAGEMENT, LLC</u> (Last) (First) (Middle) <u>20 PARK PLAZA, SUITE 1200</u> (Street) <u>BOSTON MA 02116</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Ra Pharmaceuticals, Inc. [RARX]</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) <u>12/14/2018</u>	
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 Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	12/12/2018		P		1,006,452 ⁽¹⁾	A	\$15.5	4,858,260	I	See footnote ⁽²⁾⁽³⁾

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					

1. Name and Address of Reporting Person* <u>RA CAPITAL MANAGEMENT, LLC</u> (Last) (First) (Middle) <u>20 PARK PLAZA, SUITE 1200</u> (Street) <u>BOSTON MA 02116</u> (City) (State) (Zip)		
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1. Name and Address of Reporting Person *		
RA Capital Healthcare Fund LP		
(Last)	(First)	(Middle)
C/O RA CAPITAL MANAGEMENT, LLC		
20 PARK PLAZA, SUITE 1200		
(Street)		
BOSTON	MA	02116
(City) (State) (Zip)		
1. Name and Address of Reporting Person *		
Kolchinsky Peter		
(Last)	(First)	(Middle)
C/O RA CAPITAL MANAGEMENT, LLC		
20 PARK PLAZA, SUITE 1200		
(Street)		
BOSTON	MA	02116
(City) (State) (Zip)		

Explanation of Responses:

1. These securities include 836,666 shares held by RA Capital Healthcare Fund, L.P. (the "Fund") and 169,786 shares held in an account owned by a separately managed account (the "Account").
2. Represents 3,971,750 shares of Common Stock held by the Fund and 886,510 shares of Common Stock held in the Account.
3. RA Capital Management, LLC (the "Adviser") is the general partner of the Fund and the investment adviser of the Account. Peter Kolchinsky is the sole manager of the Adviser. The Adviser and Dr. Kolchinsky disclaim beneficial ownership of the reported securities in reliance on Rule 16a-1(a)(1)(v) and (vii) and disclaim any obligation to file reports under Section 16 other than as directors by deputization. The Adviser and Dr. Kolchinsky have no pecuniary interest in the reported securities held in the Account and disclaim: (A) beneficial ownership thereof for purposes of Rule 16a-1(a)(2) and (B) beneficial ownership of securities held by the Fund, for purposes of Rule 16a-1(a)(2), except to the extent of their pecuniary interest therein.

[/s/ Peter Kolchinsky, Manager of RA Capital Management, LLC](#) 12/14/2018

[/s/ Peter Kolchinsky, Manager of RA Capital Management, LLC, the General Partner of RA Capital Healthcare Fund, L.P.](#) 12/14/2018

[/s/ Peter Kolchinsky, individually](#) 12/14/2018

** 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.