

OMB APPROVAL	
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**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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

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>			2. Issuer Name and Ticker or Trading Symbol <u>Wave Life Sciences Ltd. [ WVE ]</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>01/24/2019</u>			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input checked="" type="checkbox"/> Form filed by More than One Reporting Person		
<u>20 PARK PLAZA, SUITE 1200</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			
Ordinary Shares	01/24/2019		P		263,158	A	\$38	7,775,207 <sup>(1)</sup>	I	See Footnote <sup>(2)(3)</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	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\*  
RA CAPITAL MANAGEMENT, LLC

(Last) (First) (Middle)  
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:**

- Following the reported transactions, RA Capital Healthcare Fund, L.P. (the "Fund") held 6,805,182 shares and 970,025 shares held by a separately managed account (the "Account").
- RA Capital Management, LLC (the "Adviser") is the general partner of the Fund and the investment adviser of the Account. Peter Kolchinsky is a director of the issuer and is the sole manager of the Adviser. In their respective capacities, each of Dr. Kolchinsky and the Adviser may be deemed to beneficially own the reported securities for purposes of Section 13(d) of the Securities Exchange Act of 1934.
- The Adviser and Dr. Kolchinsky disclaim beneficial ownership of the reported securities for purposes of Rule 16a-1(a)(1) under the Exchange Act in reliance on Rule 16a-1(a)(1)(v) and (vii), respectively. The filing of this Form 4 shall not be construed as an admission that either the Adviser or Dr. Kolchinsky is or was, for purposes of Rule 16a-1(a)(1) under the Exchange Act, the beneficial owner of any of the securities reported herein. Dr. Kolchinsky and the Adviser disclaim beneficial ownership of the securities reported herein for purposes of Rule 16a-1(a)(2) under the Exchange Act except to the extent of their pecuniary interest therein.

/s/ Peter Kolchinsky, Manager 01/28/2019  
of RA Capital Management,  
LLC

/s/ Peter Kolchinsky, 01/28/2019  
individually.

\*\* 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.**