

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

OMB APPROVAL	
OMB Number:	3235-0287
Estimated average burden hours per response:	0.5

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>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)
	3. Date of Earliest Transaction (Month/Day/Year) <u>11/13/2017</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			
Ordinary Shares	11/13/2017		P		400,000 ⁽¹⁾	A	\$23.3	7,488,651	I	See Footnote ⁽²⁾⁽³⁾
Ordinary Shares	11/14/2017		P		23,398 ⁽¹⁾	A	\$23.9999 ⁽⁴⁾	7,512,049 ⁽⁵⁾	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)
						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:

- These securities are held in a separately managed account (the "Account").
- RA Capital Management, LLC (the "Adviser") is the general partner of RA Capital Healthcare Fund, L.P. (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 Mr. 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.

3. The Adviser and Mr. 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 Mr. 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. Mr. 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.

4. The prices reported in Column 4 are weighted average prices. The shares were purchased in multiple transactions at prices ranging from \$23.78 to \$23.70, inclusive. The reporting persons undertake 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 purchased at each separate price within the range.

5. Following the reported transactions, the Fund held 6,582,428 shares and the Account held 929,621 shares.

/s/ Peter Kolchinsky, Manager
of RA Capital Management, LLC 11/15/2017

/s/ Peter Kolchinsky,
individually. 11/15/2017

** 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.