

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

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SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 2)*

Wave Life Sciences Ltd.
(Name of Issuer)

Ordinary Shares
(Title of Class of Securities)

Y95308105
(CUSIP Number)

RA Capital Management, LLC
20 Park Plaza, Suite 1200
Boston, MA 02116
Telephone: 617.778.2512
Attn: Peter Kolchinsky

(Name, Address and Telephone Number of Person Authorized to
Receive Notices and Communications)

January 24, 2019
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. []

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	Names of Reporting Persons. RA Capital Management, LLC	
2	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC Use Only	
4	Source of Funds (See Instructions): AF	
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
6	Citizenship or Place of Organization. Massachusetts	
	7	Sole Voting Power 0 shares
	8	Shared Voting Power 7,775,207 shares
	9	Sole Dispositive Power 0 shares
	10	Shared Dispositive Power 7,775,207 shares
11	Aggregate Amount Beneficially Owned by Each Reporting Person 7,775,207 shares	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13	Percent of Class Represented by Amount in Row (11) 23.3%¹	
14	Type of Reporting Person (See Instructions) IA, OO (Limited Liability Company)	

¹ The reporting person is the beneficial owner of 7,775,207 shares of the Issuer's Ordinary Shares which constitute approximately 23.3% of the class outstanding. The percentage calculation assumes that there are currently 33,376,176 outstanding shares of Ordinary Shares of the Issuer, based on the Issuer's Prospectus as filed with the Securities and Exchange Commission ("SEC") on January 24, 2019.

1	Names of Reporting Persons. Peter Kolchinsky	
2	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC Use Only	
4	Source of Funds (See Instructions): AF	
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
6	Citizenship or Place of Organization. United States	
	7	Sole Voting Power 0 shares
	8	Shared Voting Power 7,775,207 shares
	9	Sole Dispositive Power 0 shares
	10	Shared Dispositive Power 7,775,207 shares
11	Aggregate Amount Beneficially Owned by Each Reporting Person 7,775,207 shares	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13	Percent of Class Represented by Amount in Row (11) 23.3%²	
14	Type of Reporting Person (See Instructions) HC, IN	

² The reporting person is the beneficial owner of 7,775,207 shares of the Issuer's Ordinary Shares which constitute approximately 23.3% of the class outstanding. The percentage calculation assumes that there are currently 33,376,176 outstanding shares of Ordinary Shares of the Issuer, based on the Issuer's Prospectus as filed with the Securities and Exchange Commission ("SEC") on January 24, 2019.

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This Amendment No. 2 amends and supplements the statement on Schedule 13D (originally filed with the Securities and Exchange Commission on November 27, 2015 by the Reporting Persons with respect to Ordinary Shares (the "Ordinary Shares"), of Wave Life Sciences Ltd., a Singapore public limited company (the "Issuer"), and as amended by the Schedule 13D/A filed by the Reporting Persons on November 15, 2017 (collectively, the "Statement"). Unless otherwise defined herein, capitalized terms used in this Amendment No. 2 shall have the meanings ascribed to them in the initial Statement.

Item 3. Source and Amount of Funds or Other Consideration

Item 3 of the Statement is hereby amended and supplemented as follows:

On January 24, 2019, the Reporting Persons purchased 263,158 Ordinary Shares for \$10,000,004.00 as part of an additional offering by the Issuer. All shares were purchased with working capital of the Fund and the Account.

Item 4. Purpose of Transaction

Item 4 is hereby supplemented as follows:

The Reporting Persons acquired the Ordinary Shares referred to in Item 3 for investment purposes and not with an intent, purpose or effect of changing control of the Issuer.

Item 5. Interest in Securities of the Issuer

(a) and (b) See Items 7-11 of the cover pages and Item 2 above.

(c) The following table lists the Reporting Persons' transactions in Common Stock that were effected during the sixty day period prior to the filing of this Schedule 13D:

Transaction	Date	No. Shares	Price
Purchase	24-Jan-2019	263,158	\$38.00

(d) Not applicable.

(e) Not applicable.

Item 7. Material to Be Filed as Exhibits

Exhibit 1 Joint Filing Agreement by and among the Reporting Persons is incorporated herein by reference to Exhibit 1 to the Schedule 13D filed by the Reporting Persons with the Securities and Exchange Commission on November 27, 2015.

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SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: January 28, 2019

RA CAPITAL MANAGEMENT, LLC

By: /s/ Peter Kolchinsky
Peter Kolchinsky
Manager

PETER KOLCHINSKY

/s/ Peter Kolchinsky
