FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL 3235-0287 OMB Number:

	3235-028
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Sectio obligat	n 16. Form 4 or tions may conti		ST/									OWNER	RSHIP	E		mber: d average bu r response:	3235-0287 urden 0.5	
Instruc	tion 1(b).			Fi	led purs or	uant to Section 30	ction 1 (h) of 1	6(a) of the the Investr	e Sec ment	urities Excl Company /	hange Act Act of 1940	of 1934 )						
1. Name and Address of Reporting Person <sup>*</sup> RA CAPITAL MANAGEMENT, L.P.				2. Issuer Name and Ticker or Trading Symbol <u>Wave Life Sciences Ltd.</u> [ WVE ]								5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director X 10% Owner						
(Last) (First) (Middle) 200 BERKELEY STREET, 18TH FLOOR					3. Date of Earliest Transaction (Month/Day/Year) 06/16/2022							Officer (give title Other (specify below) below)						
(Street) BOSTON MA 02116				4. lf <i>F</i>	4. If Amendment, Date of Original Filed (Month/Day/Year)							6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person						
(City) (State) (Zip)					X Form filed by Mo								More th	nan One Re	porting Person			
			Table I - N	on-Deri	vative	Securit	ties /	Acquire	ed, D	isposed	d of, or l	Benefici	ally Owned					
1. Title of	Security (Ins	tr. 3)		2. Transaction Date (Month/Day/Year)		2A. Deemed Execution Date, if any (Month/Day/Year)		Code (	Transaction Code (Instr.		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5		Beneficial Following	i Iy Owned Reported	Form: Direct Owned (D) or Indirect ported (I) (Instr. 4)		Indirect Beneficial Ownership	
							-	Code	v	Amount	(A) (D)	or Price	Transaction(s)				(Instr. 4)	
Ordinary	Shares		Tabla II	06/16/2				P		9,480,0				17,202,009 <sup>(1)</sup>		Ι	See Footnotes <sup>(1)(2)</sup>	
			Table II	- Derivation (e.g.,	ative : puts,	calls, wa	es Ad arrar	cquirea nts, opti	i, Dis ions	, conve	of, or Be rtible se	eneficial	lly Owned					
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Dat if any (Month/Day/Ye	Code	saction (Instr.	5. Numbe Derivative Securities Acquired or Dispos (D) (Instr. and 5)	e (A) ed of	6. Date E Expiratio (Month/D	n Date	e	Securitie	nd Amount o s Underlyin e Security nd 4)		9. Numb derivativ Securitie Benefici Owned Followin Reporte	e Owne s Form ally Direct or Ind g (I) (Ins	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4	Beneficial Ownership (Instr. 4)	
				Code	v	(A)	(D)	Date Exercisal		Expiration Date	Title	Amount o Number o Shares		Transact (Instr. 4)				
Pre- Funded Warrants (Right to Buy)	\$0.0001	06/16/2022		Р		7,093,656		(3)	•	06/16/2027	Ordinary Shares	7,093,6	56 \$2.1499	7,093,	,656	I	See Footnotes <sup>(1)</sup> (2)(3)	
		Reporting Person <sup>*</sup>														·		
(Last) 200 BEF	RKELEY ST	(First) TREET, 18TH F	(Midd)	le)		-												
(Street) BOSTO	N	MA	0211	6		-												
(City)		(State)	(Zip)			_												
		Reporting Person <sup>*</sup> thcare Fund																
(Last) 200 BEF	RKELEY ST	(First) FREET, 18TH F	(Midd LOOR	le)														
(Street) BOSTO	N	МА	0211	6		_												
(City)		(State)	(Zip)															
	nd Address of <u>nsky Pete</u>	Reporting Person <sup>*</sup> <u>I</u>																
1		(First) MANAGEMEN FREET, 18TH F		le)														
(Street) BOSTO	N	МА	0211	6		_												
(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)		00116							
BOSTON	MA	02116							
(City)	(State)	(Zip)							

## Explanation of Responses:

1. These Securities are held directly by RA Capital Healthcare Fund, L.P. (the "Fund")

RA Capital Management, L.P. (the "Adviser") is the investment manager for the 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.
The Pre-Funded Warrants are exercisable immediately and will be exercisable until exercised in full. The Pre-Funded Warrants may not be exercised to the extent such exercise would cause the holder (together with its affiliates, any other persons acting as a group together with the holder or any of the holder's affiliates, and any other persons whose beneficial ownership of the Issuer's ordinary shares would or could be aggregated with the holder's affiliates, amended) to beneficially own more than 19.99% of the Issuer's ordinary shares outstanding immediately after giving effect to such exercise.

## Remarks:

Dr. Kolchinsky serves on the Issuer's board of directors.

/s/ Peter Kolchinsky, Manager of RA Capital Management, L.P.	06/21/2022
<u>/s/ Peter Kolchinsky, Manager of</u> <u>RA Capital Healthcare Fund GP,</u> <u>LLC the General Partner of RA</u> <u>Capital Healthcare Fund, L.P.</u>	<u>06/21/2022</u>
/s/ Peter Kolchinsky, individually	06/21/2022
/s/ Rajeev Shah, individually	06/21/2022
** Signature of Reporting Person	Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

 $^{\star}$  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.