SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934 (Amendment No. 4)*

CONNECT BIOPHARMA HOLDINGS LIMITED

(Name of Issuer)

Ordinary shares, par value \$0.000174 per share

(Title of Class of Securities)

207523101**

(CUSIP Number)

RA Capital Management, L.P. 200 Berkeley Street, 18th Floor Boston, MA 02116 Attn: Peter Kolchinsky Telephone: 617.778.2500

(Name, Address and Telephone Number of Person

Authorized to Receive Notices and Communications)

December 18, 2023

(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 Section 240.13d-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.

** There is no CUSIP number assigned to the Ordinary Shares. CUSIP number 207523101 has been assigned to the American Depositary Shares ("ADSs") of the Issuer. Each ADS represents one Ordinary Share.

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, as amended ("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. | Naı | Names of Reporting Persons. | | | | |
|---|--|-----------------------------|---------------------------------------|--|--|--|
| | RA | Capita | Management, L.P. | | | |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) (a) | | | | | |
| | (b) | | | | | |
| 3. | SEC Use Only | | | | | |
| 4. | Source of Funds (See Instructions) AF | | | | | |
| 5. | | | | | | |
| 6. Citizenship or Place of Organization Delaware | | | | | | |
| | | 7. | Sole Voting Power 0 | | | |
| Number Shares Beneficia | ally | 8. | Shared Voting Power 3,062,871 | | | |
| Owned Each Reportin | ng | 9. | Sole Dispositive Power 0 | | | |
| Person W | 7ith | 10. | Shared Dispositive Power 3,062,871 | | | |
| 11. | Aggregate Amount Beneficially Owned by Each Reporting Person 3,062,871 | | | | | |
| 12. | Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) | | | | | |
| 13. | Percent of Class Represented by Amount in Row (11) 5.6% ¹ | | | | | |
| 14. | | | | | | |

¹ The Reporting Person is the beneficial owner of 3,062,871 shares of the Issuer's Ordinary Shares represented by ADSs. The percentage calculation assumes that there are 55,071,559 outstanding shares of Ordinary Shares of the Issuer based on the Issuer's Form 6-K filed with Securities and Exchange Commission ("SEC") on September 12, 2023.

CUSIP No. 207523101

| 1. | Names of Reporting Persons. | | | | |
|---|--|----------|---|--|--|
| | Peter | Kolc | hinsky | | |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) (a) | | | | |
| | (b) | | | | |
| 3. | SEC U | Use O | nly | | |
| 4. | Source of Funds (See Instructions) AF | | | | |
| 5. | | | | | |
| 6. | Citizenship or Place of Organization United States | | | | |
| | 7 | • | Sole Voting Power 0 | | |
| Number Shares Beneficia | s 8 ally | | Shared Voting Power 3,062,871 | | |
| Owned Each Reportin | 9 ng | | Sole Dispositive Power 0 | | |
| Person W | | 0. | Shared Dispositive Power 3,062,871 | | |
| 11. | Aggre 3,062 | • | Amount Beneficially Owned by Each Reporting Person | | |
| 12. | Check | c if the | e Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) | | |
| 13. | Percent of Class Represented by Amount in Row (11) 5.6%² | | | | |
| 14. Type of Reporting Person (See Instructions) HC, IN | | | | | |

 2 The Reporting Person is the beneficial owner of 3,062,871 shares of the Issuer's Ordinary Shares represented by ADSs. The percentage calculation assumes that there are 55,071,559 outstanding shares of Ordinary Shares of the Issuer based on the Issuer's Form 6-K filed with the SEC on September 12, 2023.

CUSIP No. 207523101

| 1. | Names of Reporting Persons. | | | | |
|---|--|---------|---|--|--|
| | Raje | ev Sh | ah | | |
| 2. | (a) | k the . | Appropriate Box if a Member of a Group (See Instructions) | | |
| | (b) | | | | |
| 3. | SEC | Use C | nly | | |
| 4. | Source of Funds (See Instructions) AF | | | | |
| 5. | Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) | | | | |
| 6. | Citizenship or Place of Organization United States | | | | |
| | , | 7. | Sole Voting Power 0 | | |
| Number Share Benefici | s ally | 8. | Shared Voting Power 3,062,871 | | |
| Owned Each Reporti | ng | 9. | Sole Dispositive Power 0 | | |
| Person W | | 10. | Shared Dispositive Power 3,062,871 | | |
| 11. | Aggr 3,06 2 | | Amount Beneficially Owned by Each Reporting Person | | |
| 12. | Chec | k if th | e Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) | | |
| 13. | Percent of Class Represented by Amount in Row (11) 5.6% ^{3} | | | | |
| 14. Type of Reporting Person (See Instructions) HC, IN | | | | | |

³ The Reporting Person is the beneficial owner of 3,062,871 shares of the Issuer's Ordinary Shares represented by ADSs. The percentage calculation assumes that there are 55,071,559 outstanding shares of Ordinary Shares of the Issuer based on the Issuer's Form 6-K filed with the SEC on September 12, 2023.

| 1. | Names of Reporting Persons. | | | | |
|---|---|---------------------|---|--|--|
| | RA | Capital | l Healthcare Fund, L.P. | | |
| 2. | (a) | eck the A | Appropriate Box if a Member of a Group (See Instructions) | | |
| | (b) | | | | |
| 3. | SEC | C Use O | nly | | |
| 4. | Source of Funds (See Instructions) WC | | | | |
| 5. | | | | | |
| 6. Citizenship or Place of Organization Delaware | | | | | |
| | | 7. | Sole Voting Power 0 | | |
| Number Shares Beneficia | ally | 8. | Shared Voting Power 2,623,596 | | |
| Owned Each Reportin | ng | 9. | Sole Dispositive Power 0 | | |
| Person W | 7ith | 10. | Shared Dispositive Power 2,623,596 | | |
| 11. | | gregate A 23,596 | Amount Beneficially Owned by Each Reporting Person | | |
| 12. | | | | | |
| 13. | Percent of Class Represented by Amount in Row (11) 4.8% ⁴ | | | | |
| 14. | | | | | |

⁴ The Reporting Person is the beneficial owner of 2,623,596 shares of the Issuer's Ordinary Shares represented by ADSs. The percentage calculation assumes that there are 55,071,559 outstanding shares of Ordinary Shares of the Issuer based on the Issuer's Form 6-K filed with the SEC on September 12, 2023.

SCHEDULE 13D

Item 1. Security and Issuer

Item 1 of the Statement is hereby amended and supplemented as follows:

This Amendment No. 4 (this "Amendment No. 4" or this "13D/A") amends and supplements the statement on the Schedule 13D originally filed with the Securities and Exchange Commission (the "SEC") on March 29, 2021, amended on June 7, 2021, December 4, 2023, and December 14, 2023 (as amended, the "Statement"), filed by the Reporting Persons with respect to the Ordinary Shares, par value \$0.000174 per share ("Ordinary Shares"), of Connect Biopharma Holdings Limited, an exempted Cayman Islands company (the "Issuer"). Unless otherwise defined herin, capitalized terms used in this Amendment No. 4 shall have the meanings ascribed to them in the Staatement. Unless amended or supplemented below, the information in the Statement remains unchanged.

Item 2. Identity and Background

Item 2 of the Statement is hereby amended and restated as follows:

(a) This 13D/A is being filed on behalf of RA Capital Management, L.P. ("<u>RA Capital</u>"), Peter Kolchinsky, Rajeev Shah, and RA Capital Healthcare Fund, L.P. (the "<u>Fund</u>"), which are collectively referred to herein as the "<u>Reporting Persons</u>." The agreement among the Reporting Persons to file this 13D/A jointly in accordance with Rule 13d-1(k) of the Securities Exchange Act of 1934, as amended (the "<u>Exchange Act</u>"), is attached hereto as Exhibit 1.

The Reporting Persons ownership of the Issuer's securities includes (i) 2,623,596 ADSs held directly by the Fund, and (ii) 439,275 ADSs held directly by RA Capital Nexus Fund, L.P. (the "Nexus Fund"). RA Capital Healthcare Fund GP, LLC is the general partner of the Fund and RA Capital Nexus Fund GP, LLC is the general partner of the Nexus Fund. The general partner of RA Capital is RA Capital Management GP, LLC, of which Dr. Kolchinsky and Mr. Shah are the controlling persons. RA Capital serves as investment adviser for the Fund and the Nexus Fund, and may be deemed a beneficial owner, for purposes of Section 13(d) of the Exchange Act, of any securities of the Issuer held by the Fund or the Nexus Fund. The Fund and the Nexus Fund have delegated to RA Capital the sole power to vote and the sole power to dispose of all securities held in the Fund's and the Nexus Fund's portfolio, including the shares of the Issuer's Common Stock reported herein. Because the Fund and the Nexus Fund disclaim beneficial ownership of the securities they hold for purposes of Section 13(d) of the Act and therefore disclaim any obligation to report ownership of the reported securities under Section 13(d) of the Exchange Act. As managers of RA Capital, Dr. Kolchinsky and Mr. Shah may be deemed beneficial owners, for purposes of Section 13(d) of the Act, of any securities reported in this 13D/A other than for the purpose of determining their obligations under Section 13(d) of the Act, and the filing of the Statement shall not be deemed an admission that either RA Capital, Dr. Kolchinsky, or Mr. Shah is the beneficial owner of such securities for any other purpose.

- (b) The address of the principal business office of each of the Reporting Persons is 200 Berkeley Street, 18th Floor, Boston, MA 02116.
- (c) The Fund is a private investment vehicle. RA Capital provides investment management services to the Fund and the Nexus Fund. The principal occupation of Dr. Kolchinsky and Mr. Shah is investment management.
- (d) During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree of final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) See row 6 of the cover pages.

Item 5. Interest in Securities of the Issuer

Item 5 of the Statement is hereby amended and restated in its entirety to read as follows:

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

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

| Transaction | Purchaser | Date | No. Shares | Price | |
|-------------|----------------|-------------|------------|--------|--|
| Sell | The Fund | 18-Dec-2023 | 1,765,788 | \$0.85 | |
| Sell | The Nexus Fund | 18-Dec-2023 | 295,650 | \$0.85 | |

(d) Not applicable.

(e) Not applicable.

Item 7. Material to Be Filed as Exhibits

Exhibit 1 Joint Filing Agreement

SIGNATURES

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.

Dated: December 20, 2023

RA CAPITAL MANAGEMENT, L.P.

By: /s/ Peter Kolchinsky Name: Peter Kolchinsky Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC

Its: General Partner

By: /s/ Peter Kolchinsky

Name: Peter Kolchinsky Title: Manager Exhibit 1

JOINT FILING AGREEMENT

This Joint Filing Agreement, dated as of December 20, 2023, is by and among RA Capital Management, L.P., Peter Kolchinsky, Rajeev Shah, and RA Capital Healthcare Fund, L.P. (the foregoing are collectively referred to herein as the "Filers").

Each of the Filers may be required to file with the United States Securities and Exchange Commission a statement on Schedule 13G and/or 13D with respect to Ordinary shares, par value \$0.000174 per share of Connect Biopharma Holdings Limited beneficially owned by them from time to time.

Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Joint Filing Agreement as an exhibit to such statement, as required by such rule.

This Joint Filing Agreement may be terminated by any of the Filers upon one week's prior written notice or such lesser period of notice as the Filers may mutually agree.

Executed and delivered as of the date first above written.

RA CAPITAL MANAGEMENT, L.P.

By: /s/ Peter Kolchinsky Name: Peter Kolchinsky Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC

Its: General Partner

By: /s/ Peter Kolchinsky

Name: Peter Kolchinsky Title: Manager