

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

SCHEDULE 13D

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

Bicycle Therapeutics plc

(Name of Issuer)

Ordinary Shares

(Title of Class of Securities)

088786108 **

(CUSIP Number)

**Vertex Global HC Fund I Pte. Ltd.
250 North Bridge Road
#11-01 Raffles City Tower
Singapore 179101
Tel: 65-68288050**

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

May 22, 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).

** Cusip number relates to the American Depositary Shares representing Ordinary Shares. References herein to "Ordinary Shares" include Ordinary Shares underlying American Depositary Shares.

1 Names of Reporting Persons.
Vertex Venture Holdings Ltd.

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 Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e):

6 Citizenship or Place of Organization.
Singapore

7 Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
1,621,168 (see Item 5 below)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
1,621,168 (see Item 5 below)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
1,621,168 (see Item 5 below)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
9.16% (see Item 5 below)

14 Type of Reporting Person (See Instructions)
CO

1 Names of Reporting Persons.
Vertex Global HC Fund I Pte. Ltd.

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):
WC

5 Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e):

6 Citizenship or Place of Organization.
Singapore

7 Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
1,621,168 (see Item 5 below)

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0

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12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
9.16% (see Item 5 below)

14 Type of Reporting Person (See Instructions)
CO

1 Names of Reporting Persons.
Vertex Venture Management Pte. Ltd.

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 Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e):

6 Citizenship or Place of Organization.
Singapore

7 Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
1,621,168 (see Item 5 below)

9 Sole Dispositive Power
0

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1,621,168 (see Item 5 below)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
1,621,168 (see Item 5 below)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
9.16% (see Item 5 below)

14 Type of Reporting Person (See Instructions)
CO

SCHEDULE 13D

Item 1. Security and Issuer

This Schedule 13D relates to Ordinary Shares of Bicycle Therapeutics plc, a public limited company organized under the laws of England and Wales (the "Issuer" or the "Company"). The address of the principal executive offices of the Issuer is N900, Babraham Research Campus, Cambridge CB22 3AT, United Kingdom.

Item 2. Identity and Background

(a) This Schedule 13D is being filed on behalf of Vertex Venture Holdings Ltd. ("VVH"), Vertex Global HC Fund I Pte. Ltd. ("VGHC") and Vertex Venture Management Pte. Ltd. ("VVM"). The shares of the Issuer are held by VGHC, for whom VVM serves the fund manager. VVM is deemed to have dispositive and voting power over the Issuer's shares held by VGHC pursuant to a management agreement between VGHC and VVM whereby the divestment and voting decisions require the unanimous approval of the members of an investment committee established by VVM. In addition, as the sole shareholder of VVM, VVH is deemed to have dispositive and voting power over the shares held by VGHC.

(b) The address for the Reporting Persons is:

250 North Bridge Road
#11-01 Raffles City Tower
Singapore 179101

(c) See Item 2(a).

(d) None of the Reporting Persons has, during the last five years, been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) None of the Reporting Persons has, during the last five years, 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 or 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 Item 6 of the respective cover page of each Reporting Person

Item 3. Source and Amount of Funds or Other Consideration

The Ordinary Shares reported herein as being beneficially owned by the Reporting Persons were purchased using working capital of VGHC. The aggregate consideration paid for such securities was approximately \$15.9 million in cash.

Item 4. Purpose of Transaction

The Reporting Persons acquired the securities reported herein for the benefit of the above-referenced private investment funds and accounts for investment purposes. The Reporting Persons intend to evaluate this investment in the Issuer and options with respect to such investment on an ongoing basis.

The Reporting Persons may acquire additional Ordinary Shares and/or other securities of the Issuer from time to time or may dispose of any or all of such Ordinary Shares or other securities held or beneficially owned by them at any time.

From time to time, the Reporting Persons may engage in discussions with the Issuer's Board of Directors and/or members of the Issuer's management team concerning, without limitation, potential business combinations and strategic alternatives, the business, operations, capital structure, governance, management, strategy of the Issuer and other matters concerning the Issuer.

The Reporting Persons reserve the right to change their purpose and to formulate and implement plans or proposals with respect to the Issuer at any time and from time to time. Any such action may be made by the Reporting Persons alone or in conjunction with other shareholders, potential acquirers, financing sources and/or other third parties and could include one or more purposes, plans or proposals that relate to or would result in actions required to be reported herein in accordance with Item 4 of Schedule 13D.

Carolyn Ng, who serves as a principal of VGHC, is a Director of the Issuer.

Item 5. Interest in Securities of the Issuer

(a) and (b) See Items 7-13 of the cover pages and Item 2 above.

The percentage calculations herein are based upon the statement in a prospectus dated May 22, 2019, as filed by the Issuer with the Securities and Exchange Commission on May 23, 2019, that there would be 17,696,417 Ordinary Shares of the Issuer outstanding as of the closing of the public offering to which such prospectus related.

(c) The Reporting Persons did not engage in any transactions in Ordinary Shares of the Issuer during the sixty day period prior to the filing of this Schedule 13D other than the exercise of a warrant to acquire 141,668 Ordinary Shares at an exercise price of GBP 0.01 per share immediately prior to the closing of the Issuer's initial public offering on May 28, 2019.

(d) Not applicable.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

Not applicable.

Item 7. Material to be Filed as Exhibits

Exhibit 99.1 Joint Filing Agreement, by and among the Reporting Persons.

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: June 7, 2019

Vertex Venture Holdings Ltd.

By: /s/ Chua Kee Lock
Name: Chua Kee Lock
Title: Director

Vertex Global HC Fund I Pte. Ltd.

By: /s/ Chua Kee Lock
Name: Chua Kee Lock
Title: Director

Vertex Venture Management Pte. Ltd.

By: /s/ Chua Kee Lock
Name: Chua Kee Lock
Title: Director

JOINT FILING AGREEMENT

This Joint Filing Agreement, dated as of June 7, 2019, is by and among Vertex Venture Holdings Ltd., Vertex Global HC Fund I Pte. Ltd. and Vertex Venture Management Pte. Ltd. (collectively, 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 of Bicycle Therapeutics plc that may be 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) to the other party.

Executed and delivered as of the date first above written.

Vertex Venture Holdings Ltd.

By: /s/ Chua Kee Lock
Name: Chua Kee Lock
Title: Director

Vertex Global HC Fund I Pte. Ltd.

By: /s/ Chua Kee Lock
Name: Chua Kee Lock
Title: Director

Vertex Venture Management Pte. Ltd.

By: /s/ Chua Kee Lock
Name: Chua Kee Lock
Title: Director
