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

SCHEDULE 13G

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

Bicycle Therapeutics plc

(Name of Issuer)

Common Stock, £0.01 par value per share

(Title of Class of Securities)

088786108

(CUSIP Number)

February 14, 2023

(Date of Event Which Requires Filing of this statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

* 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 the disclosures provided in a prior cover page.

The information required in 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

Paradigm BioCapital Advisors LP

2. Check the Appropriate Box if a Member of a Group (See Instructions)

- (a)
(b)

3. SEC Use Only

4. Citizenship or Place of Organization

Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5. SOLE VOTING POWER	1,610,665
	6. SHARED VOTING POWER	0
	7. SOLE DISPOSITIVE POWER	1,610,665
	8. SHARED DISPOSITIVE POWER	0

9. Aggregate Amount Beneficially Owned by Each Reporting Person

1,610,665

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

5.4%

12. Type of Reporting Person (See Instructions)

PN

* The information above is given as of the end of business on February 24, 2023, the filing date of this Schedule 13G.

1. Names of Reporting Persons

Paradigm BioCapital Advisors GP LLC

2. Check the Appropriate Box if a Member of a Group (See Instructions)

- (a)
- (b)

3. SEC Use Only

4. Citizenship or Place of Organization

Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5. SOLE VOTING POWER	1,610,665
	6. SHARED VOTING POWER	0
	7. SOLE DISPOSITIVE POWER	1,610,665
	8. SHARED DISPOSITIVE POWER	0

9. Aggregate Amount Beneficially Owned by Each Reporting Person

1,610,665

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

5.4%

12. Type of Reporting Person (See Instructions)

OO

* The information above is given as of the end of business on February 24, 2023, the filing date of this Schedule 13G.

1. Names of Reporting Persons

Dr. Senai Asefaw

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Citizenship or Place of Organization

USA

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5. SOLE VOTING POWER	1,610,665
	6. SHARED VOTING POWER	0
	7. SOLE DISPOSITIVE POWER	1,610,665
	8. SHARED DISPOSITIVE POWER	0

9. Aggregate Amount Beneficially Owned by Each Reporting Person

1,610,665

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

5.4%

12. Type of Reporting Person (See Instructions)

IN

* The information above is given as of the end of business on February 24, 2023, the filing date of this Schedule 13G.

1. Names of Reporting Persons

Paradigm BioCapital International Fund Ltd.

2. Check the Appropriate Box if a Member of a Group (See Instructions)

- (a)
(b)

3. SEC Use Only

4. Citizenship or Place of Organization

Cayman Islands

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5. SOLE VOTING POWER	1,242,742
	6. SHARED VOTING POWER	0
	7. SOLE DISPOSITIVE POWER	1,242,742
	8. SHARED DISPOSITIVE POWER	0

9. Aggregate Amount Beneficially Owned by Each Reporting Person

1,242,742

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

4.2%

12. Type of Reporting Person (See Instructions)

CO

* The information above is given as of the end of business on February 24, 2023, the filing date of this Schedule 13G.

Item 1.

- (a) The name of the issuer is Bicycle Therapeutics plc. (the “*Issuer*”).
- (b) The principal executive offices of the Issuer are located at Blocks A & B, Portway Building, Granta Park Great Abington, Cambridge, United Kingdom, CB21 6GS.

Item 2.

- (a) This Schedule 13G is filed by the following (the “*Reporting Persons*”): (1) Paradigm BioCapital Advisors LP (the “*Adviser*”); (2) Paradigm BioCapital Advisors GP LLC (the “*GP*”); (3) Dr. Senai Asefaw, and (4) Paradigm BioCapital International Fund Ltd. (the “*Fund*”). The Fund is a private investment vehicle. The Fund and a separately managed account managed by the Adviser (the “*Account*”) directly beneficially own the Common Stock (as defined below) reported in this Statement. The Adviser is the investment manager of the Fund and the Account. The GP is the general partner of the Adviser. Dr. Senai Asefaw is the managing member of the GP. The Adviser, the GP and Dr. Asefaw may be deemed to beneficially own the Common Stock directly beneficially owned by the Fund and the Account. Each Reporting Person disclaims beneficial ownership with respect to any Common Stock other than the Common Stock directly beneficially owned by such Reporting Person.
- (b) The principal business office of the Reporting Persons is 767 Third Avenue, 17th Floor, New York, NY 10017.
- (c) For citizenship information see Item 4 of the cover page of each Reporting Person.
- (d) This statement relates to the Common Stock, £0.01 par value per share, of the Issuer (the “*Common Stock*”).
- (e) The CUSIP Number of the Common Stock is 088786108.

Item 3. If this statement is filed pursuant to 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) An investment adviser in accordance with 240.13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with 240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with 240.13d-1(b)(1)(ii)(G);
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) A non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J);
- (k) Group, in accordance with §240.13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J), please specify the type of institution: _____

Item 4. Ownership.

See Items 5-9 and 11 on the cover page for each Reporting Person and Item 2, which information is given as of the close of business on February 24, 2023, the date of filing of this Schedule 13G. On the Event Date of February 14, 2023, the Reporting Persons collectively beneficially owned 1,590,665 shares of Common Stock, representing 5.4% of the outstanding shares of Common Stock.

The percentages of beneficial ownership contained herein are based on 29,689,471 shares of Common Stock outstanding as of October 31, 2022, as reported in the Issuer's Form 10-Q filed on November 3, 2022.

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following:

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

Not applicable.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

(a) Not applicable.

(b) Not applicable.

(c) By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under §240.14a-11.

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.

Dated: February 24, 2023

Paradigm BioCapital Advisors LP
Paradigm BioCapital Advisors GP LLC
Paradigm BioCapital International Fund Ltd.

By: /s/ David K. Kim
Name: David K. Kim
Title: Authorized Signatory

/s/ Dr. Senai Asefaw
Dr. Senai Asefaw

EXHIBIT INDEX

Exhibit No.	Document
1	Joint Filing Agreement

Exhibit 1

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the persons named below agree to the joint filing on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Common Stock, £0.01 par value per share, of Bicycle Therapeutics plc and further agree that this Joint Filing Agreement be included as an Exhibit to such joint filing. In evidence thereof, the undersigned hereby execute this Agreement.

Dated: February 24, 2023

Paradigm BioCapital Advisors LP
Paradigm BioCapital Advisors GP LLC
Paradigm BioCapital International Fund Ltd.

By: /s/ David K. Kim

Name: David K. Kim

Title: Authorized Signatory

/s/ Dr. Senai Asefaw

Dr. Senai Asefaw
