
SCHEDULE 13G

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

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

Bicycle Therapeutics plc

(Name of Issuer)

Ordinary Shares, nominal value £0.01 per share

(Title of Class of Securities)

088786108**

(CUSIP Number)

January 31, 2024

(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 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 (the "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).

**This CUSIP applies to the American Depositary Shares, each representing one Ordinary Share.

1	NAMES OF REPORTING PERSONS Baker Bros. Advisors LP		
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	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 4,823,598 (1)	
	6	SHARED VOTING POWER -0-	
	7	SOLE DISPOSITIVE POWER 4,823,598 (1)	
	8	SHARED DISPOSITIVE POWER -0-	
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,823,598 (1)		
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 12.8% (1)(2)(3)		
12	TYPE OF REPORTING PERSON (See Instructions) IA, PN		

(1) Includes 825,418 Ordinary Shares (“Ordinary Shares”) of Bicycle Therapeutics plc (the “Issuer”), 2,050,180 Ordinary Shares held in the form of 2,050,180 American Depositary Shares (“ADS”), and 1,948,000 Ordinary Shares in the form of 1,948,000 ADS issuable upon the exercise of 19,480 European Call Options (as defined in Item 4) directly held by the Funds (as defined below). Each ADS represents one Ordinary Share of the Issuer.

(2) As discussed in Item 4 below, as of December 31, 2023, the beneficial ownership of the Reporting Persons was 9.99%, which includes 825,418 Ordinary Shares, 1,790,390 Ordinary Shares held in the form of 1,790,390 ADS and 1,279,843 Ordinary Shares issuable upon the conversion of 1,279,843 Non-Voting Ordinary Shares (as defined in Item 4 and subject to limitations as described therein) directly held by the Funds (as defined below).

(3) Based on 37,715,666 Ordinary Shares of the Issuer outstanding as of October 30, 2023, as reported in the Issuer’s Form 10-Q filed with the Securities and Exchange Commission (“SEC”) on November 2, 2023.

1	NAMES OF REPORTING PERSONS Baker Bros. Advisors (GP) 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	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 4,823,598 (1)	
	6	SHARED VOTING POWER -0-	
	7	SOLE DISPOSITIVE POWER 4,823,598 (1)	
	8	SHARED DISPOSITIVE POWER -0-	
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,823,598 (1)		
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 12.8% (1)(2)(3)		
12	TYPE OF REPORTING PERSON (See Instructions) HC, OO		

(1) Includes 825,418 Ordinary Shares, 2,050,180 Ordinary Shares held in the form of 2,050,180 ADS, and 1,948,000 Ordinary Shares in the form of 1,948,000 ADS issuable upon the exercise of 19,480 European Call Options (as defined in Item 4) directly held by the Funds (as defined below). Each ADS represents one Ordinary Share of the Issuer.

(2) As discussed in Item 4 below, as of December 31, 2023, the beneficial ownership of the Reporting Persons was 9.99%, which includes 825,418 Ordinary Shares, 1,790,390 Ordinary Shares held in the form of 1,790,390 ADS and 1,279,843 Ordinary Shares issuable upon the conversion of 1,279,843 Non-Voting Ordinary Shares (as defined in Item 4 and subject to limitations as described therein) directly held by the Funds (as defined below).

(3) Based on 37,715,666 Ordinary Shares of the Issuer outstanding as of October 30, 2023, as reported in the Issuer's Form 10-Q filed with the SEC on November 2, 2023.

1	NAMES OF REPORTING PERSONS Felix J. Baker		
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	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 4,823,598 (1)	
	6	SHARED VOTING POWER -0-	
	7	SOLE DISPOSITIVE POWER 4,823,598 (1)	
	8	SHARED DISPOSITIVE POWER -0-	
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,823,598 (1)		
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 12.8% (1)(2)(3)		
12	TYPE OF REPORTING PERSON (See Instructions) IN, HC		

(1) Includes 825,418 Ordinary Shares, 2,050,180 Ordinary Shares held in the form of 2,050,180 ADS, and 1,948,000 Ordinary Shares in the form of 1,948,000 ADS issuable upon the exercise of 19,480 European Call Options (as defined in Item 4) directly held by the Funds (as defined below). Each ADS represents one Ordinary Share of the Issuer.

(2) As discussed in Item 4 below, as of December 31, 2023, the beneficial ownership of the Reporting Persons was 9.99%, which includes 825,418 Ordinary Shares, 1,790,390 Ordinary Shares held in the form of 1,790,390 ADS and 1,279,843 Ordinary Shares issuable upon the conversion of 1,279,843 Non-Voting Ordinary Shares (as defined in Item 4 and subject to limitations as described therein) directly held by the Funds (as defined below).

(3) Based on 37,715,666 Ordinary Shares of the Issuer outstanding as of October 30, 2023, as reported in the Issuer's Form 10-Q filed with the SEC on November 2, 2023.

1	NAMES OF REPORTING PERSONS Julian C. Baker		
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	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 4,823,598 (1)	
	6	SHARED VOTING POWER -0-	
	7	SOLE DISPOSITIVE POWER 4,823,598 (1)	
	8	SHARED DISPOSITIVE POWER -0-	
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,823,598 (1)		
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 12.8% (1)(2)(3)		
12	TYPE OF REPORTING PERSON (See Instructions) IN, HC		

(1) Includes 825,418 Ordinary Shares, 2,050,180 Ordinary Shares held in the form of 2,050,180 ADS, and 1,948,000 Ordinary Shares in the form of 1,948,000 ADS issuable upon the exercise of 19,480 European Call Options (as defined in Item 4) directly held by the Funds (as defined below). Each ADS represents one Ordinary Share of the Issuer.

(2) As discussed in Item 4 below, as of December 31, 2023, the beneficial ownership of the Reporting Persons was 9.99%, which includes 825,418 Ordinary Shares, 1,790,390 Ordinary Shares held in the form of 1,790,390 ADS and 1,279,843 Ordinary Shares issuable upon the conversion of 1,279,843 Non-Voting Ordinary Shares (as defined in Item 4 and subject to limitations as described therein) directly held by the Funds (as defined below).

(3) Based on 37,715,666 Ordinary Shares of the Issuer outstanding as of October 30, 2023, as reported in the Issuer's Form 10-Q filed with the SEC on November 2, 2023.

Schedule 13G

Item 1(a) Name of Issuer:

Bicycle Therapeutics plc (the "Issuer")

Item 1(b) Address of Issuer's Principal Executive Offices:

Blocks A & B, Portway Building, Granta Park
Great Abington, Cambridge, United Kingdom CB21 6GS

Item 2(a) Name of Person Filing:

This Schedule 13G is being filed jointly by Baker Bros. Advisors LP (the "Adviser"), Baker Bros. Advisors (GP) LLC (the "Adviser GP"), Felix J. Baker and Julian C. Baker (collectively, the "Reporting Persons").

Item 2(b) Address of Principal Business Office or, if None, Residence:

The business address of each of the Reporting Persons is:

c/o Baker Bros. Advisors LP
860 Washington Street, 3rd Floor
New York, NY 10014
(212) 339-5690

Item 2(c) Citizenship:

The Adviser is a limited partnership organized under the laws of the State of Delaware. The Adviser GP is a limited liability company organized under the laws of the State of Delaware. The citizenship of each of Julian C. Baker and Felix J. Baker is the United States of America.

Item 2(d) Title of Class of Securities:

Ordinary Shares, nominal value £0.01 per share ("Ordinary Shares").

Item 2(e) CUSIP Number:

088786108

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

- (a) Broker or dealer registered under Section 15 of the Exchange Act.
- (b) Bank as defined in section 3(a)(6) of the Exchange Act.
- (c) Insurance company as defined in section 3(a)(19) of the Exchange Act.
- (d) Investment company registered under section 8 of the Investment Company Act of 1940.
- (e) An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E).
- (f) An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F).
- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G).
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act.
- (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.
- (j) Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

Item 4 **Ownership:**

Items 5 through 9 and 11 of each of the cover pages to this Schedule 13G are incorporated herein by reference.

Set forth below are the securities of the Issuer directly held by each of 667, L.P. (“667”) and Baker Brothers Life Sciences, L.P. (“Life Sciences”, and together with 667, the “Funds”) on January 31, 2024 which may be deemed to be indirectly beneficially owned by the Reporting Persons and which include 825,418 Ordinary Shares, 2,050,180 Ordinary Shares held in the form of 2,050,180 American Depositary Shares of the Issuer (“ADS”) and 1,948,000 ADS issuable upon the exercise of 19,480 European-style call options to purchase ADS for an exercise price of \$0.01 per ADS (“European Call Options”). Such ownership below does not include Ordinary Shares that may be acquired upon conversion of Non-Voting Ordinary Shares (“Non-Voting Ordinary Shares”), which are convertible into Ordinary Shares at any time on a 1-for-1 basis without additional consideration, subject to the limitations on conversion described below. Each ADS represents one Ordinary Share of the Issuer.

The information set forth below for January 31, 2024, is based on 37,715,666 Ordinary Shares of the Issuer outstanding as of October 30, 2023, as reported in the Issuer’s Form 10-Q filed with the Securities and Exchange Commission (“SEC”) on November 2, 2023. Such percentage figures are calculated in accordance with Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

Name	Number of Ordinary Shares we own or have the right to acquire within 60 days of January 31, 2024	Percent of Class Outstanding
667, L.P.	398,094	1.1%
Baker Brothers Life Sciences, L.P.	4,425,504	11.7%
Total	4,823,598	12.8%

Set forth below are the securities of the Issuer directly held by each of the Funds on December 31, 2023 which may be deemed to be indirectly beneficially owned by the Reporting Persons and which include 825,418 Ordinary Shares, 1,790,390 Ordinary Shares held in the form of 1,790,390 ADS, and 1,279,843 Ordinary Shares issuable upon conversion of Non-Voting Ordinary Shares, subject to the limitations on conversion described below. Such ownership does not include ADS issuable upon exercise of European Call Options, none of which are exercisable 60 days from December 31, 2023.

The information set forth below for December 31, 2023, is based on 37,715,666 Ordinary Shares of the Issuer outstanding as of October 30, 2023, as reported in the Issuer's Form 10-Q filed with the SEC on November 2, 2023. Such percentage figures are calculated in accordance with Rule 13d-3 under the Exchange Act.

Name	Number of Ordinary Shares we own or have the right to acquire within 60 days of December 31, 2023	Percent of Class Outstanding
667, L.P.	309,915	0.79%
Baker Brothers Life Sciences, L.P.	3,585,736	9.20%
Total	3,895,651	9.99%

The Non-Voting Ordinary Shares are only convertible to the extent that after giving effect to such conversion the holders thereof, their affiliates and any persons who are members of a Section 13(d) group with the holders or their affiliates would beneficially own in the aggregate, for purposes of Rule 13d-3 under the Exchange Act, no more than 9.99% of the outstanding Ordinary Shares (the "Beneficial Ownership Limitation"). By written notice to the Issuer, the Funds may from time to time increase or decrease the Beneficial Ownership Limitation applicable to that Fund to any other percentage not in excess of 19.9%. Any such increase will not be effective until the 61st day after such notice is delivered to the Issuer. As a result of this restriction, the number of Ordinary Shares that may be issued upon conversion of the Non-Voting Ordinary Shares by the above holders may change depending upon changes in the outstanding Ordinary Shares. Due to such Beneficial Ownership Limitation, at January 31, 2024, the Funds could not convert any Non-Voting Ordinary Shares.

The Adviser GP is the sole general partner of the Adviser. Pursuant to the management agreements, as amended, among the Adviser, the Funds and their respective general partners, the Funds' respective general partners relinquished to the Adviser all discretion and authority with respect to the investment and voting power of the securities held by the Funds and thus the Adviser has complete and unlimited discretion and authority with respect to the Funds' investments and voting power over investments.

The Adviser GP, Felix J. Baker and Julian C. Baker as managing members of the Adviser GP, and the Adviser may be deemed to be beneficial owners of securities of the Issuer directly held by the Funds.

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 . N/A

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

N/A

Item 7 Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person:

The information in Item 4 is incorporated herein by reference.

Item 8 Identification and Classification of Members of the Group:

N/A

Item 9 Notice of Dissolution of Group:

N/A

Item 10 Certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and 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.

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.

February 12, 2024

BAKER BROS. ADVISORS LP

By: Baker Bros. Advisors (GP) LLC, its general partner

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

BAKER BROS. ADVISORS (GP) LLC

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

/s/ Julian C. Baker

Julian C. Baker

/s/ Felix J. Baker

Felix J. Baker

AGREEMENT

In accordance with Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that this Statement on Schedule 13G relating to the Ordinary Shares of Bicycle Therapeutics plc is being filed with the Securities and Exchange Commission on behalf of each of them.

February 12, 2024

BAKER BROS. ADVISORS LP

By: Baker Bros. Advisors (GP) LLC, its general partner

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

BAKER BROS. ADVISORS (GP) LLC

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

/s/ Julian C. Baker

Julian C. Baker

/s/ Felix J. Baker

Felix J. Baker
