UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D/A (Amendment No. 4) *

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO § 240.13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO 240.13d-2(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934

BICYCLE THERAPEUTICS PLC

(Name of Issuer)

Ordinary Shares, par value £0.01 (Title of Class of Securities)

088786 108

(CUSIP Number)

Victoria A. Whyte GlaxoSmithKline plc 980 Great West Road Brentford, Middlesex TW8 9GS England Telephone: +44 (0)208 047 5000

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

August 5, 2021

(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. \Box

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

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.

^{*} 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.

1.	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)
	GlaxoSmithKline plc
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 BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
6.	CITIZENSHIP OR PLACE OF ORGANIZATION
0.	CITIZENSHIP ON PLACE OF ONGANIZATION
	England and Wales
	7. SOLE VOTING POWER
NI	UMBER OF 1,529,561
	SHARES 8. SHARED VOTING POWER
BEN	NEFICIALLY
	Which by
	EACH 9. SOLE DISPOSITIVE POWER
RI	EPORTING 4 500 564
PEF	RSON WITH
	10. SHARED DISPOSITIVE POWER
	-0-
	11. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	1,529,561(1)
	12. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
	(see instructions)
	13. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
	6.0% (2)
	14. TYPE OF REPORTING PERSON (see instructions)
	14. TITE OF REPORTING LEROON (See histactions)
	CO
Foo	otnotes:
(1)	1 FOO FC1 shows of Oudinary Change are half of according CCV Facility Languages I limited formation C.D. Out I live of WCCVFTW
(1) indire	1,529,561 shares of Ordinary Shares are held of record by GSK Equity Investments, Limited, formerly S.R. One, Limited ("GSKEI"), an

- (2) Based upon 25,509,312 of the Issuer's Ordinary Shares outstanding as of August 2, 2021, as reported in the Issuer's quarterly report for the quarter period ending June 30, 2021, on the Form 10-Q as filed with the Securities and Exchange Commission (the "SEC") on August 5, 2021.

Item 1. Security and Issuer.

This Amendment No. 4 to Schedule 13D (this "Statement") amends and supplements the statement on Schedule 13D originally filed on June 7, 2019, and amended on February 14, 2020, December 7, 2020 and April 16, 2021 (the "Schedule 13D") with respect to the ordinary shares, nominal value £0.01 per share (the "Ordinary Shares") of Bicycle Therapeutics plc, a public limited company incorporated under the laws of England and Wales (the "Issuer"). GlaxoSmithKline plc is filing this amendment to disclose its new percentage beneficial ownership in the Issuer, which has been decreased as a result of (1) the disposition of American Depositary Shares representing Ordinary Shares by the Reporting Person and (2) an increase in the outstanding Ordinary Shares of the Issuer. The Issuer's principal executive offices are located at B900, Babraham Research Campus, Cambridge, CB22 3AT, United Kingdom.

Item 2. Identity and Background.

The response set forth in Item 2 of the Schedule 13D is hereby amended by deleting Schedule 1 in its entirety and replacing it with Schedule 1 attached.

Item 5. Interest in Securities of the Issuer.

The response set forth in Items 5 (a), (b) and (c) of the Schedule 13D is hereby amended by deleting the previous response in its entirety and replacing it with the following:

- (a), (b) The information contained in rows 7, 8, 9, 10, 11, and 13 on each of the cover pages of this Statement is incorporated by reference in its entirety into this Item 5.
- (c) Except as described herein, no transaction in Ordinary Shares were effected during the past 60 days by GlaxoSmithKline plc

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: September 16, 2021

GLAXOSMITHKLINE PLC

By: <u>/s/ Victoria A. Whyte</u> Name: Victoria A. Whyte Title: Authorized Signatory Schedule 1

Name	Business Address	Principal Occupation or Employment	Citizenship
Board of Directors			
Emma Walmsley	980 Great West Road Brentford Middlesex, England TW8 9GS	Executive Director and Chief Executive Officer	British
Charles Bancroft	980 Great West Road Brentford Middlesex, England TW8 9GS	Company Director	US
Manvinder Singh Banga	980 Great West Road Brentford Middlesex, England TW8 9GS	Company Director	British & Indian
Dr. Hal Barron	269 E. Grand Avenue, South San Francisco, CA 94080	Executive Director and Chief Scientific Officer	US
Dr. Anne Beal	980 Great West Road Brentford Middlesex, England TW8 9GS	Company Director	US
Dr. Vivienne Cox	980 Great West Road Brentford Middlesex, England TW8 9GS	Company Director	British
Lynn Elsenhans	980 Great West Road Brentford Middlesex, England TW8 9GS	Company Director	US
Dr. Jesse Goodman	980 Great West Road Brentford Middlesex, England TW8 9GS	Company Director	US
Dr Laurie Glimcher	980 Great West Road Brentford Middlesex, England TW8 9GS	Company Director	US
Iain MacKay	980 Great West Road Brentford Middlesex, England TW8 9GS	Executive Director & Chief Financial Officer	British

Name	Business Address	Principal Occupation or Employment	Citizenship
Jrs Rohner	980 Great West Road Brentford Middlesex, England TW8 9GS	Company Director	Swiss
ir Jonathan Symonds	980 Great West Road Brentford Middlesex, England TW8 9GS	Chairman and Company Director	British
Corporate Executive Team			
Emma Walmsley	980 Great West Road Brentford Middlesex, England TW8 9GS	Executive Director and Chief Executive Officer	British
Or. Hal Barron	269 E. Grand Avenue, South San Francisco, CA 94080	Executive Director and Chief Scientific Officer	US
Roger Connor	980 Great West Road Brentford Middlesex, England TW8 9GS	President, Global Vaccines	Irish
Diana Conrad	980 Great West Road Brentford Middlesex, England TW8 9GS	Senior Vice President, Human Resources	Canadian
ames Ford	980 Great West Road Brentford Middlesex, England TW8 9GS	Senior Vice President & General Counsel	British & US
lick Hirons	980 Great West Road Brentford Middlesex, England TW8 9GS	Senior Vice President, Global Ethics and Compliance	British & US
Sally Jackson	980 Great West Road Brentford Middlesex, England TW8 9GS	Senior Vice President, Global Communications and CEO Office	British
ain MacKay	980 Great West Road Brentford Middlesex, England TW8 9GS	Executive Director & Chief Financial Officer	British

Brian McNamara	184 Liberty Corner Road Warren NJ, 07059	Chief Executive Officer, GSK Consumer Healthcare	US
Luke Miels	980 Great West Road Brentford Middlesex, England TW8 9GS	President, Global Pharmaceuticals	Australian
David Redfern	980 Great West Road Brentford Middlesex, England TW8 9GS	Chief Strategy Officer	British
Regis Simard	980 Great West Road Brentford Middlesex, England TW8 9GS	President Pharmaceutical Supply Chain	French & British
Karenann Terrell	980 Great West Road Brentford Middlesex, England TW8 9GS	Chief Digital and Technology Officer	Canadian
Philip Thomson	980 Great West Road Brentford Middlesex, England TW8 9GS	President, Global Affairs	British
Deborah Waterhouse	980 Great West Road Brentford Middlesex, England TW8 9GS	Chief Executive Officer of ViiV Healthcare	British