FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

| Washington, | D.C. | 20549 |
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL | | | | | | | | | | |
|--------------------------|-----|--|--|--|--|--|--|--|--|--|
| OMB Number: 3235-0 | | | | | | | | | | |
| Estimated average burden | | | | | | | | | | |
| hours per response: | 0.5 | | | | | | | | | |

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b)

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| Name and Address of Reporting Person* Smethurst Dominic | | | | | 2. Issuer Name and Ticker or Trading Symbol BICYCLE THERAPEUTICS plc [BCYC] | | | | | | |] (Ch | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director Officer (give title Other (specify | | | | | | | |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------|-------|-------------------------------------------------------------------------------|----------------------------------------------------------|--------|------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------|----------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------|--|--|
| | (Last) (First) (Middle) C/O BICYCLE THERAPEUTICS PLC B900, BABRAHAM RESEARCH CAMPUS | | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 01/03/2022 | | | | | | | | X Officer (give title Officer (specify below) Chief Medical Officer | | | | |
| (Street) CAMBR (City) | IDGE X |) | CB22 3A' | Γ | - 4. I | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | Line | Individual or Joint/Group Filing (Check Applicable ine) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | | |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Da | | | | | | Execution Date, | | 3. Transaction Code (Instr. 8) 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4) | | ed (A) or tr. 3, 4 and | Benefici | es Formally (D) (Following (I) (I | | m: Direct or Indirect Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | | | | |
| | | | | | | | | | Code | v | Amount | (A) or (D) | Price | Transaci (Instr. 3 | ion(s) | | | (IIISU. 4) | | |
| Ordinary Shares 01/03/2 | | | | | 3/2022 | /2022 | | A | | 15,000 | 15,000 ⁽¹⁾ A \$ | | (2) 21 | 21,000 | | D | | | | |
| | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date if any (Month/Day/Yea | Date, | 4. Transactio Code (Inst 8) | | | | 6. Date Exercis Expiration Date (Month/Day/Ye | | е | Amount of Securities Underlying Derivative | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 9. Number derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | e S Illy | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership t (Instr. 4) | | |
| | | | | Code | | v | (A) | (D) | Date Exercisal | | Expiration Date | Title | Amount or Number of Shares | | | | | | | |
| Employee Stock Option (right to buy) | \$60.87 | 01/03/2022 | | | A | | 30,000 | | (3) | | 01/03/2032 | Ordinary Shares | 30,000 | \$0.00 | 30,000 | 0 | D | | | |

Explanation of Responses:

- 1. Represents a restricted stock unit ("RSU") award. One-fourth (1/4) of the total number of RSUs shall vest on January 3, 2023 and the remaining RSUs shall vest in 12 equal quarterly installments thereafter.
- 2. Each RSU represents a contingent right to receive one ordinary share.
- 3. This option shall vest one-fourth (1/4) of the total number of shares underlying the option on January 3, 2023 and the remaining shares in 36 equal monthly installments thereafter.

Remarks:

/s/ Lee Kalowski, Attorney-in-

Fact

01/05/2022 ** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.