| SEC Form 4 |  |
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Instruction 1(b).

## FORM 4

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See

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

OMB APPROVAL

| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|
| Estimated average burden |           |  |  |  |  |  |  |  |
| hours per response:      | . 0.5     |  |  |  |  |  |  |  |

| STATEMENT | OF | CHANGES | IN B | ENEFICIAL | OWNERSHIP |
|-----------|----|---------|------|-----------|-----------|
|-----------|----|---------|------|-----------|-----------|

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

|                                |                                       |                     | ()   |                   |  |  |  |  |
|--------------------------------|---------------------------------------|---------------------|--|-------------------|--|--|--|--|
|                                |                                       | Person <sup>*</sup> | 2. Issuer Name and Ticker or Trading Symbol<br>BICYCLE THERAPEUTICS plc [ BCYC ]   |                   | ationship of Reporting Po<br>k all applicable)<br>Director | 10% Owner                              |  |  |
|                                |                                       |                     | 3. Date of Earliest Transaction (Month/Day/Year)<br>04/03/2024   | Х                 | Officer (give title<br>below)<br>CHIEF SCIENTIF            | Other (specify<br>below)<br>IC OFFICER |  |  |
| BLOCKS A & B, PORTWAY BUILDING |                                       | <b>BUILDING</b>     | 4. If Amendment, Date of Original Filed (Month/Day/Year)   | 6. Indiv<br>Line) | vidual or Joint/Group Fili                                 | ing (Check Applicable                  |  |  |
|                                | · · · · · · · · · · · · · · · · · · · |                     | =  | X                 | Form filed by One Reporting Person                         |  |  |  |
| (Street)<br>CAMBRIDGE          | X0                                    | CB21 6GS            |  |                   | Form filed by More th<br>Person                            | an One Reporting                       |  |  |
| (City)                         | (State)                               | (Zip)               | Rule 10b5-1(c) Transaction Indication  |                   |  |  |  |  |
|                                |                                       |                     | Check this box to indicate that a transaction was made pursuant to satisfy the affirmative defense conditions of Rule 10b5-1(c). See I |                   |  | an that is intended to                 |  |  |

## Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| ······································ |  |   |                             |   |                             |               |                                |                                    |   |   |   |   |
|--|--|---|-----------------------------|---|-----------------------------|---------------|--------------------------------|------------------------------------|---|---|---|---|
| 1. Title of Security (Instr. 3)        | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | Transaction<br>Code (Instr. |   | Transaction<br>Code (Instr. |               |                                |                                    |   | 5. Amount of<br>Securities<br>Beneficially<br>Owned Following<br>Reported | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|  |  |   | Code                        | v | Amount                      | (A) or<br>(D) | Price                          | Transaction(s)<br>(Instr. 3 and 4) |   | (1150.4)  |   |   |
| Ordinary Shares                        | 04/03/2024                                 |   | <b>S</b> <sup>(1)</sup>     |   | 790                         | D             | <b>\$23</b> .81 <sup>(2)</sup> | 62,803                             | D |   |   |   |
| Ordinary Shares                        |  |   |                             |   |                             |               |                                | 7,000                              | Ι | By<br>GRAT  |   |   |

## Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned

(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of<br>Derivative<br>Security<br>(Instr. 3) | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transa<br>Code (<br>8) |   | of<br>Deriv<br>Secu<br>Acqu<br>(A) o<br>Disp<br>of (D<br>(Inst |           |                     | Expiration Date<br>(Month/Day/Year)<br>urities<br>uired<br>or<br>oosed<br>D)<br>(Kr, 3, 4 |       |  |  |  | unt of Derivative de<br>rities Security Se<br>(Instr. 5) Bit<br>ative Of<br>rity (Instr.<br>  4) Fe<br>Tr |  | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Form:<br>Direct (D)<br>Owned<br>or Indirect<br>Following<br>Transaction(s)<br>(Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---|---|--|---|------------------------------|---|--|-----------|---------------------|---|-------|--|--|--|---|--|---|--|
|   |   |  |   | Code                         | v | (A)  | 5)<br>(D) | Date<br>Exercisable | Expiration<br>Date  | Title | Amount<br>or<br>Number<br>of<br>Shares |  |  |   |  |   |  |

## Explanation of Responses:

1. Represents the number of shares required to be sold to cover the statutory tax withholding obligations in connection with the vesting and settlement of the RSUs. This sale is mandated by the Reporting Person's award agreement that requires the satisfaction of tax withholding obligations to be funded by a "sell to cover" transaction and does not represent a discretionary sale by the Reporting Person. 2. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$23.75 to \$24.05 inclusive. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote

> /s/ Jason Minio, Attorney-in-04/05/2024 Fact

\*\* 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.