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

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

March 16, 2021

Date of Report (Date of earliest event reported)

Bicycle Therapeutics plc

(Exact name of registrant as specified in its charter)

England and Wales (State or other jurisdiction of incorporation) **001-38916** (Commission File Number)

Not applicable (IRS Employer Identification No.)

B900, Babraham Research Campus Cambridge CB22 3AT United Kingdom (Address of principal executive offices)

Not Applicable

(Zip Code)

Registrant's telephone number, including area code: +44 1223 261503

| Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the |
|---|
| following provisions: |
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| J | Soliciting material | pursuant to Rule | 14a-12 under the | Exchange Act (1) | / CFR 240.14a-12) |
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- □ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- □ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---|-------------------|---|
| Ordinary shares, nominal value £0.01 per share | n/a | The Nasdaq Stock Market LLC* |
| American Depositary Shares, each representing one ordinary share, nominal value £0.01 per share | ВСҮС | The Nasdaq Stock Market LLC |

^{*} Not for trading, but only in connection with the listing of the American Depositary Shares on The Nasdaq Stock Market LLC.

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ⊠

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \boxtimes

Item 7.01 Regulation FD Disclosure.

On March 16, 2021, Bicycle Therapeutics plc (the "Company") posted an updated corporate presentation on the Company's website. To access the presentation, investors should visit the "Investors & Media" section of the Company's website at investors.bicycletherapeutics.com.

The information furnished under this Item 7.01 shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or subject to the liabilities of that section. The information shall not be deemed incorporated by reference into any other filing with the Securities and Exchange Commission made by the Company, regardless of any general incorporation language in such filing.

Item 8.01 Other Events.

On March 16, 2021, the Company disclosed an update related to its ongoing Phase I clinical trial of BT5528. The Company had previously reported that, in such trial, it observed a urothelial cancer patient to have a 43% reduction in target lesions at the first radiologic response assessment, which was conducted two months after treatment initiation, constituting a partial response under RECIST version 1.1 criteria. In a subsequent radiologic response assessment, conducted four months after treatment initiation, the patient was observed to have a 61% reduction in target lesions from baseline, which continues to constitute a partial response under RECIST version 1.1 criteria, and remains on therapy. In addition, the Company has disclosed that an ovarian cancer patient in the trial, enrolled prior to implementation of the EphA2 assay and previously reported to have completed eight cycles of BT5528 with a 25% reduction in target lesions, constituting stable disease, is now in the eleventh cycle and has reported symptomatic disease potentially related to disease progression but remains on study.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: March 16, 2021 BICYCLE THERAPEUTICS PLC

By: /s/ Lee Kalowski Name: Lee Kalowski

Title: Chief Financial Officer