VIA EDGAR AND FEDERAL EXPRESS

United States Securities and Exchange Commission Division of Corporation Finance Mail Stop 4561 100 F Street, N.E. Washington, D.C. 20549 Attention: Chris Edwards and Liz Walsh

Re: Bicycle Therapeutics Ltd.
Registration Statement on Form S-1
Filed May 13, 2019
CIK 0001761612

Dear Mr. Edwards and Ms. Walsh:

This letter is submitted on behalf of Bicycle Therapeutics Ltd (the "Company") in response to the comments of the staff of the Division of Corporation Finance (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") with respect to Amendment No. 1 to the Company's Registration Statement on Form S-1 filed on May 13, 2019 ("Amendment No. 1"), as set forth in the Staff's letter dated May 16, 2019 addressed to Lee Kalowski, Chief Financial Officer of the Company (the "Comment Letter").

For reference purposes, the text of the Comment Letter has been reproduced herein with responses below the numbered comment. For your convenience, we have italicized the reproduced Staff comment from the Comment Letter. Unless otherwise indicated, page references in the description of the Staff's comment refer to Amendment No.1. All capitalized terms used and not otherwise defined herein shall have the meanings set forth in Amendment No. 1.

The responses provided herein are based upon information provided to Goodwin Procter LLP by the Company.

Amendment No. 1 to Registration Statement on Form S-1 filed on May 13, 2019

<u>Summary Consolidated Financial Data</u> <u>Statement of Operations Data, page 13</u>

1. We note from your disclosure on page 11 that you intend to grant options to purchase an aggregate of 1,311,061 ordinary shares to certain of your directors and officers upon the effectiveness of this registration statement. Please expand your disclosure to provide a narrative description of the pro forma effects of this transaction to the extent that the grant would materially impact your net loss and pro forma net loss per share attributable to ordinary shareholders, basic and diluted, in accordance with Article 11 of Regulation S-X. Your disclosure should include the impact of the transaction by income statement line item, as applicable.

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RESPONSE:

The Company acknowledges the Staff's comment and respectfully advises the Staff that it does not believe that the impact of the option awards described would be material to potential investors in the offering. The Company advises the Staff that based on the midpoint of the price range presented on the cover of the prospectus contained in Amendment No. 1, the Company expects to recognize an aggregate of approximately \$17.0 million as a result of these option grants over the three-year vesting term, which would be approximately \$5.7 million on an annual basis. However, their financial impact is limited to non-cash charges that will be recognized in future periods over the three-year vesting period as a component of research and development expenses and general and administrative expenses in the consolidated statements of operations and comprehensive loss, and no expense will be recorded at the time of issuance. These option grants would not result in any adjustments to the historical financial information included in Amendment No.1. In addition, Company advises the Staff that the share option grants will not impact pro-forma net loss per share attributable to ordinary shareholders, basic and diluted, because their impact is anti-dilutive. Based on its interactions with investors in prior testing the waters meetings and on its road show for the offering, its knowledge of the biotechnology industry in which the Company operates, and disclosure practices of the Company's peers in its industry, the Company respectfully advises the Staff that it does not believe that potential investors would view the disclosure of the expected financial impact of the option grants to be material or have a material impact on their investment decision, as the investors are primarily focused on the cash balance and cash used in operations to fund the Company's operating activities until the next inflection point in its development efforts, and the expected issuance of the options to purchase ordinary shares has been disclosed.

The Company advises the Staff that once the offering price is determined at pricing following effectiveness of the Company's Registration Statement, which will be used to measure the compensation expense that will be recognized in future periods for the share options granted, the Company intends to disclose such estimated amount of aggregate compensation expense and the period of expense recognition in its final prospectus for the offering. In addition, the Company intends to disclose the compensation charges in future periods as they are recognized in its periodic reports following the offering.

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If you should have any questions concerning the enclosed matters, please contact the undersigned at (617) 570-1483.

Sincerely,

/s/ James Xu

James Xu, Esq.

cc: Kevin Lee, Bicycle Therapeutics Limited
Lee Kalowski, Bicycle Therapeutics Limited
Kristopher D. Brown, Goodwin Procter LLP
Jonathan A. Schur, Goodwin Procter LLP
Divakar Gupta, Cooley LLP
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