

May 16, 2019

Lee Kalowski
Chief Financial Officer
Bicycle Therapeutics Ltd.
4 Hartwell Place
Lexington, Massachusetts 02421

Re: Bicycle Therapeutics Ltd.
Amendment No. 1 to Registration Statement on Form S-1
Filed May 13, 2019
File No. 333-231076

Dear Mr. Kalowski:

We have reviewed your amended registration statement and have the following comment.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Amendment No. 1 to Form S-1 filed on May 31, 2019

Summary Consolidated Financial Data
Statement of Operations Data, page 13

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.

You may contact Jim Dunn at (202) 551-3724 or Isaac Esquivel at (202) 551-3395 if you have questions regarding comments on the financial statements and related matters. Please

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contact Liz Walsh at (202) 551-3696 or Chris Edwards at (202) 551-6761 with any other questions.

Sincerely,

FirstName LastNameLee Kalowski

Division of

Corporation Finance
Company NameBicycle Therapeutics Ltd.

Office of Healthcare &

Insurance

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cc: Jonathan Schur

FirstName LastName