

**VIA EDGAR**

May 20, 2019

U.S. 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.  
Acceleration Request for Registration Statement on Form S-1  
File No. 333-231076**

**Acceleration Request**

**Requested Date: May 22, 2019**

**Requested Time: 4:00 p.m., Eastern Time**

Dear Mr. Edwards and Ms. Walsh:

Pursuant to Rule 461 under the Securities Act of 1933, as amended (the “**Act**”), Bicycle Therapeutics Ltd. (the “**Company**”) hereby requests that the effective date of the above-referenced registration statement (the “**Registration Statement**”) be accelerated to May 22, 2019, at 4:00 p.m., Eastern Time, or as soon thereafter as practicable, unless we or our outside counsel, Goodwin Procter LLP, request by telephone that such Registration Statement be declared effective at some other time. In making this acceleration request, the Company acknowledges that it is aware of its responsibilities under the Act.

Once the Registration Statement is effective, please orally confirm the event with our counsel, Goodwin Procter LLP by calling James Xu at (617) 570-1483. We also respectfully request that a copy of the written order from the Securities and Exchange Commission verifying the effective time and date of the Registration Statement be sent to our counsel, Goodwin Procter LLP, Attention: James Xu, by facsimile to (617) 801-8920 or by email at JXu@goodwinlaw.com.

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If you have any questions regarding this request, please contact James Xu of Goodwin Procter LLP at (617) 570-1483.

Sincerely,

Bicycle Therapeutics Ltd.

/s/ Kevin Lee

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Kevin Lee, Ph.D., MBA  
Chief Executive Officer

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*  
Ryan Sansom, *Cooley LLP*  
Richard Segal, *Cooley LLP*