

BICYCLE THERAPEUTICS PLC
B900, Babraham Research Campus
Cambridge CB22 3AT
United Kingdom

June 11, 2020

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549
Attn: Jeffrey Gabor

RE: Bicycle Therapeutics plc
Registration Statement on Form S-3
File No. 333-238996

Acceleration Request

Requested Date: June 15, 2020

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

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Exchange Act of 1933, as amended, the undersigned registrant hereby requests that the Securities and Exchange Commission take appropriate action to cause the above-referenced Registration Statement on Form S-3 (File No. 333-238996) (the "**Registration Statement**") to become effective at 4:00 p.m. Eastern Time on Monday, June 15, 2020, or as soon thereafter as is practicable.

Once the Registration Statement has been declared effective, please orally confirm that event with Jaime L. Chase of Cooley LLP, counsel to the registrant, at (202) 728-7096.

[Signature page follows]

Sincerely,

BICYCLE THERAPEUTICS PLC

By: /s/ Lee Kalowski
Lee Kalowski
Chief Financial Officer and President

cc: Kevin Lee, Chief Executive Officer, Bicycle Therapeutics plc
Laura A. Berezin, Cooley LLP
Ryan S. Sansom, Cooley LLP
Jaime L. Chase, Cooley LLP
