June 10, 2020

Kevin Lee, Ph.D., MBA Chief Executive Officer BICYCLE THERAPEUTICS PLC B900, Babraham Research Campus Cambridge CB22 3AT United Kingdom

Re: BICYCLE

THERAPEUTICS PLC

Statement on Form S-3

Registration

Filed June 5, 2020 File No. 333-238996

Dear Dr. Lee:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Gabor at 202-551-2544 with any questions.

Sincerely,

Division of Corporation Finance

Office of Life Sciences

cc:

Jaime L. Chase, Esq.

Please contact Jeffrey