

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

June 22, 2022

Samuel P. Wertheimer, Ph.D. Chief Executive Officer Brookline Capital Acquisition Corp. 280 Park Avenue, Suite 43W New York, NY 10017

Re: Brookline Capital Acquisition Corp.

Amendment No. 2 to Registration Statement on Form S-4

Filed June 14, 2022

File No. 333-264222

Dear Dr. Wertheimer:

We have reviewed your amended registration statement and have the following comment. In our comment, we may ask you to provide us with information so we may better understand your disclosure.

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 this comment, we may have additional comments. Unless we note otherwise, our reference to a prior comment is to a comment in our June 8, 2022 letter.

Amendment No. 2 to Registration Statement on Form S-4 filed June 14, 2022

Background of the Business Combination, page 298

1. We note your response to prior comment 5 and revised disclosure on page 304 and 310, including your disclosure that the proposed valuation took into account, among others, "data from the APX005M-004 Trial in patients with metastatic pancreatic adenocarcinoma, which had not met the expectations that existed in March 2020 for immuno-oncology therapeutics like sotigalimab)...." Please include here and on page 310 a cross reference to your disclosure on page 212 where you describe the results of the APX005M-004 trial.

Samuel P. Wertheimer, Ph.D. Brookline Capital Acquisition Corp. June 22, 2022 Page 2

You may contact Li Xiao at 202-551-4391 or Jeanne Baker at 202-551-3691 if you have questions regarding comments on the financial statements and related matters. Please contact Jason Drory at 202-551-8342 or Christine Westbrook at 202-551-5019 with any other questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Jeffrey C. Selman, Esq.