



DIVISION OF
CORPORATION FINANCE

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

March 3, 2021

Mark C. McKenna
President and Chief Executive Officer
Prometheus Biosciences, Inc.
9410 Carroll Park Drive
San Diego, California 92121

Re: Prometheus Biosciences, Inc.
Registration Statement on Form S-1
Filed February 19, 2021
File No. 333-253323

Dear Mr. McKenna:

We have reviewed your registration statement and have the following comments. In some of our comments, 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 comments apply 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.

Registration Statement on Form S-1, Filed February 19, 2021

Prospectus Summary

Our Portfolio, page 2

1. We note that both product candidates added to the pipeline table, PR1800 and PR2100, are early in the discovery stage and that there is very little discussion of these programs in your filing. Please tell us why you believe these product candidates are material enough to be included in the pipeline table.

Use of Proceeds, page 74

2. We note your revisions in response to prior comment 2 that with offering proceeds, you will complete IND-enabling preclinical studies and commence clinical development for the PR600 program. Please clarify how far in clinical development of PR600 you will

Mark C. McKenna
Prometheus Biosciences, Inc.
March 3, 2021
Page 2

reach with the offering proceeds. If you will not complete Phase 1, please revise to so state.

Business, page 97

3. We note your response to our prior comment number 3. Please revise your Business section to include p-values for studies that were powered for statistical significance and explain the meaning of p-values and how they relate to the FDA's standards of efficacy.

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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Ameen Hamady at 202-551-3891 or Daniel Gordon at 202-551-3486 if you have questions regarding comments on the financial statements and related matters. Please contact Margaret Schwartz at 202-551-7153 or Mary Beth Breslin at 202-551-3625 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Matthew T. Bush