



DIVISION OF
CORPORATION FINANCE

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

June 2, 2020

Chris Schelling
President and Chief Executive Officer
Acer Therapeutics Inc.
One Gateway Center, 300 Washington Street, Suite 351
Newton MA 02458

Re: Acer Therapeutics Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed June 1, 2020
File No. 333-238192

Dear Mr. Schelling:

We have reviewed your amended 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. Unless we note otherwise, our references to prior comments are to comments in our May 27, 2020 letter.

Amendment No. 1 to Registration Statement on Form S-1

Our Business, page 1

1. Given your disclosure that the emetine trial is subject to submission and clearance of an investigational new drug application, please revise your table to reflect your pre-clinical status. We also note your disclosure under "Novel MOA/Unique Characteristics" that your emetine product candidate has "broad-acting and potent antiviral" properties. Given that you do not appear to have clinical evidence to support your claims for the antiviral properties of your product candidate, your disclosure should be limited to the mechanism of action. Please revise as appropriate.

Chris Schelling
Acer Therapeutics Inc.
June 2, 2020
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Please contact Tim Buchmiller at (202) 551-3635 or Celeste Murphy at (202) 551-3257 with any questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Mike Hird, Esq.