



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4546

March 10, 2017

Lucy Lu, M.D.  
Interim President and Chief Executive Officer  
Avenue Therapeutics, Inc.  
2 Gansevoort Street, 9th Floor  
New York, New York 10014

**Re: Avenue Therapeutics, Inc.  
Amendment No. 1 to Registration Statement on Form 10  
Filed March 6, 2017  
File No. 000-55556**

Dear Dr. Lu:

We have reviewed your filing 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response and any amendment you may file in response to these comments, we may have additional comments.

Item 14. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure, page 53

1. Please revise to include the date through the date of dismissal of EisnerAmper with respect to disclosures in the third and fourth paragraphs. File a revised Exhibit 16.1.
2. Please revise to include the date through the date of engagement of BDO with respect to disclosures in the seventh paragraph.

Exhibits, page 54

3. Please file the amendment to the license agreement with Revogenex dated June 23, 2016 and the second amendment to the consulting agreement with Dr. Reines date August 2, 2016 as requested in paragraphs (ii) and (iii) in prior comment 8. Although the index indicates that these agreements were filed as Exhibits 10.10 and 10.11, we note that neither exhibit has been filed.

Lucy Lu, M.D.  
Avenue Therapeutics, Inc.  
March 10, 2017  
Page 2

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.

You may contact Jacob Luxenburg at (202) 551-2339 or Jim B. Rosenberg at (202) 551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Mary Beth Breslin at (202) 551-3625 with any other questions.

Sincerely,

/s/ Mary Beth Breslin for

Suzanne Hayes  
Assistant Director  
Office of Healthcare and Insurance

cc: Mark McElreath, Esq.  
Alston & Bird LLP