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March 13, 2017

Ms. Suzanne Hayes Assistant Director Office of Healthcare and Insurance Division of Corporation Finance Securities and Exchange Commission 100 F Street, N.E. Mail Stop 4546 Washington, D.C. 20549

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

Dear Ms. Hayes:

At the request and on behalf of our client, Avenue Therapeutics, Inc., a Delaware corporation (the "Company"), we hereby submit the following responses to the comments of the Staff of the Securities and Exchange Commission (the "Commission") received by letter dated March 10, 2017, relating to Amendment No. 1 to the Company's Registration Statement on Form 10, which was filed on March 6, 2017 ("Amendment No. 1"). The original Registration Statement on Form 10 was filed on January 12, 2017 (the "Original Form 10"). The responses set forth in this letter have been prepared by the Company with our assistance.

We have filed a second amendment to the Company's Registration Statement on Form 10 along with this letter ("*Amendment No. 2*"), which addresses the Commission's comments in its March 10, 2017 letter. A marked copy showing the changes made in Amendment No. 2 as compared to Amendment No. 1 is enclosed herewith for your convenience.

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

Comment:

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.

Response:

The Company agrees and has revised the Form 10 in response to this comment.

Comment:

2. Please revise to include the date through the date of engagement of BDO with respect to disclosures in the seventh paragraph.

Response:

The Company agrees and has revised the Form 10 in response to this comment.

Exhibits, page 54

Comment:

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.

Response:

The Company agrees and has filed Exhibits 10.10 and 10.11 with Amendment No. 2 in response to this comment.

The Company acknowledges that it is responsible for the adequacy and accuracy of the disclosure in the filing, that staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing and that the Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you have any further questions, comments or informational requests relating to this matter, please do not hesitate to contact me at the telephone number above.

Sincerely,

/s/ Mark F. McElreath

Mark F. McElreath