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March 6, 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 4720 Washington, D.C. 20549

Re: Avenue Therapeutics, Inc.
Registration Statement on Form 10

Filed January 12, 2016 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 February 8, 2017, relating to the Company's Registration Statement on Form 10 filed on January 12, 2016 (the "Form 10"). These responses have been prepared by the Company with our assistance.

Enclosed herewith is a proposed amended version of the Form 10 ("Proposed Amended Form 10") that addresses the Commission's comments in its February 8, 2017 letter. The revisions in the Proposed Amended Form 10 are marked for your convenience. We intend to file the amended Form 10 once we have confirmation from the Commission that the proposed revisions in the Proposed Amended Form 10 are acceptable.

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March 6, 2017 Page 2

General

Comment:

1. Please note that pursuant to Exchange Act Section 12(g)(1), this registration statement on Form 10 becomes effective automatically 60 days after its initial filing. You will then be subject to the reporting requirements of the Exchange Act of 1934, including the requirements to file Forms 10-K, 10-Q, and 8-K even if comments remain open on the Form 10. If you do not wish to become subject to these reporting requirements before completion of our review, you may wish to consider withdrawing the Form 10 before it becomes effective automatically and submitting a new Form 10 that includes changes responsive to our comments. Please note that we will continue to review your filing until all of our comments have been addressed.

Response:

It is the Company's intention to resolve all open comments prior to the effectiveness of the registration statement, and, if necessary, the Company will withdraw the registration statement prior to the automatic effective date, and continue to work to complete the review process.

Business, page 1

Intellectual Property and Patents, page 5

Comment:

2. With respect to the recent patent application claiming a dosing regimen in your intravenous tramadol product, please disclose the expected expiration date of the patent, if issued.

Response:

Please see the Amended Form 10 for the revised disclosure.

Our Development and Regulatory Strategy for IV Tramadol, page 11

Comment:

3. Please expand your disclosure to provide a discussion of the design and results of your Phase 2 clinical trials. If any material developments occurred in at the End-of-Phase 2 meeting with the FDA, please also discuss.

Response:

Please see the Amended Form 10 for the revised disclosure.

Liquidity and Capital Resources, page 36

Comment:

4. We note your disclosure that the principal amount of the NSC Note is payable starting after the first 24 months after issuance, or 30 months after issuance if Fortress extends the maturity date by six months. Given that the note was issued in February 2015, please revise your disclosure to state whether Fortress has granted an extension of the maturity date, and, if not, how you plan to satisfy the payments due.

Response:

Please see the Amended Form 10 for the revised disclosure.

Item 4. Security Ownership of Certain Beneficial Owners and Management, page 40

Comment:

5. Please update the information in the table as of the most recent practicable date. Refer to Item 403 of Regulation S-K. Similarly, please also update your disclosure on page 50 under the caption, "Holders."

Response:

Please see the Amended Form 10 for the revised disclosure.

2015 Director Compensation, page 45

Comment:

6. We note you provided disclosure of director compensation through the period ended September 30, 2016. Please revise to disclose compensation for your last completed fiscal year. See Item 402(r) of Regulation S-K.

Response:

Please see the Amended Form 10 for the revised disclosure.

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

Comment:

7. Please provide the disclosures required by Item 304 of Regulation S-K and exhibit 16 as required by Item 601 of Regulation S-K regarding termination of EisnerAmpner LLP.

Response:

Please see the Amended Form 10 for the revised disclosure.

Exhibits, page 54

Comment:

8. Please file copies of the following documents as exhibits to your registration statement: (i) the Asset Transfer Agreement dated May 13, 2015 referenced on page 7, (ii) the amendment to the license agreement with Revogenex dated June 23, 2016 referenced on page 7, and (iii) the second amendment to the consulting agreement with Dr. Reines referenced on page 45.

Response:

With regard to the Asset Transfer Agreement dated May 13, 2015, this was superceded by the terms of the Amended and Restated Founders Agreement dated September 13, 2016, which has been filed with the Form 10 as Exhibit 10.2. As a result, the Company does not intend to file this agreement as it is no longer relevant. We have also clarified the language on page 7 to remove the reference. The agreements listed in (ii) above have been filed with the Amended Form 10.

Financial Statements, page 54

Comment:

9. Audited financial statements as of December 31, 2016 and for the year then ended will be required in the filing at the effective date pursuant to rule 8-08 of Regulation S-X in order to ensure that the financial statements in the filing are current.

Response:

Please see the Amended Form 10 for the revised disclosure.

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