Mail Stop 4720

March 8, 2010

David H. Platt, Ph.D.
Chief Executive Officer/Chief Financial Officer/Chairman
Avanyx Therapeutics, Inc.
12 Appleton Circle
Newton, Massachusetts 02459

Re: Avanyx Therapeutics, Inc.
Registration Statement on Form S-1, filed February 8, 2010
File No. 333-164785

Dear Dr. Platt:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Please note that where we provide examples to illustrate what we mean by our comments, they are examples and not complete lists. If our comments are applicable to portions of the filing that we have not cited as examples, please make the appropriate changes in accordance with our comments.

2. Please update your financial information and related disclosures to include the year ended December 31, 2009 as required by Rule 8-08 of Regulation S-X.

3. Throughout the filing, please revise your references to your management team, executive officers and employees to clarify that you only have one officer. Also,

please clarify whether you have any current plans to hire any additional officers or employees.

4. Please provide the disclosure required by Item 506 of Regulation S-K (Dilution) and Item 508 of Regulation S-K (Plan of Distribution).

Prospectus Summary, page 1
Overview, page 1

5. Please disclose that you have not conducted any clinical trials or filed any applications with the FDA with respect to IPOXYN.

6. Please expand you disclosure in this section to state that your independent auditors expressed substantial doubt about your ability to continue as a going concern.

7. The Prospectus Summary section should provide a balanced presentation of the information presented in the body of the filing. As currently written, your summary focuses only on the positive attributes of the company. Please balance the current discussion in the Prospectus Summary section with a discussion of your challenges and risks, including a discussion of the fact that you have not yet received any revenues from your development stage operations nor otherwise engaged in any business operations, your product candidate is in the preclinical stage of development, the challenges to obtain FDA approval for your product candidate, and a summary of your risk factors. This new disclosure should be at least as prominent and detailed as your current discussion of the positive attributes of the company.

8. To the extent that IPOXYN for veterinary applications requires testing and approval in the jurisdictions where you hope you will market the product, please briefly describe in the Summary section those approval requirements.

9. Please disclose, if true, that without additional capital you will not be able to fund your operations, including the development of IPOXYN.

Risk Factors, page 4
We are dependent upon our officers for management and direction…, page 6

10. It appears that Dr. Platt is your only officer. Please revise this risk factor to identify Dr. Platt and to clarify that he is your only officer. Please also disclose that you have no employment agreement with Dr. Platt.

Our competitive position depends on protection of our intellectual property, page 9

11. Please clarify that your intellectual property was invented and/or developed by your CEO.

12. Please clarify the language in the last paragraph of this risk factor since it does not appear that you currently have consultants or scientific and technical employees.

Our insurance coverage may not be adequate in all circumstances, page 10

13. This risk factor is very similar to the one appearing on page 7 under the heading: "We are exposed to product liability, pre-clinical and clinical liability risks…" Please consider combining the two risk factors.

Special Note Regarding Forward-Looking Statements, page 13

14. Please delete the reference to Section 27A of the Securities Act and Section 21E of the Exchange Act or, in the alternative, clarify that your forward-looking statements are excluded from the safe harbor protection provided by the Private Securities Litigation Reform Act of 1995.

Use of Proceeds, page 14

15. You state that you intend to use the proceeds from this offering for general corporate purposes and working capital. If the proceeds of this offering will not be used to advance your product candidate, please clearly state that fact. Otherwise, please state how you intend to advance product development with the funds received from this offering.

Security Ownership of Certain Beneficial Owners and Management, page 17

16. Please disclose the names of the natural persons that have voting and investment power over the shares owned by Offer Binder.

Description of Business, page 18
Business Operations, page 18

17. You state that you have "unrestricted access to both sufficient raw materials at commodity pricing and processing facilities to produce sufficient IPOXYN™ to complete pre-clinical pharmacokinetic, safety and efficacy studies in support of an investigative new drug ("IND") filing in the United States and Europe in 2011." On page 21, however, you state that you currently have no agreement for access to a pilot-scale manufacturing facility for IPOXYN. Please revise or expand your disclosure to resolve the apparent discrepancy.

18. Please identify the "acute and late stage diseases that, [you] believe, have a great unmet medical need." Please also describe the basis for your belief that these diseases have a great unmet medical need.

19. Please describe and quantify the nature of the "potentially lucrative market" for veterinary applications of IPOXYN.

Scientific Overview – Hypoxia, page 18

20. Please explain what you mean by the statement that diseases like HIV and hepatitis have "infected the blood supply."

IPOXYN, page 19

21. Please revise your disclosure in this section specifically, and throughout the registration statement in general, to clarify that your product has not undergone clinical testing and is not ready for commercialization. Statements such as "IPOXYN (class) is a user-ready intravenous solution that can reverse an inadequate supply of oxygen" and "IPOXYN can accomplish the same result without the limitations of compatibility, availability, and short shelf-life, volume, logistical problems and the extreme fragility limitations of RBCs" do not appear to be appropriate considering the fact that you have not conducted safety and efficacy studies.

22. Please explain what you mean by the sentence: "Hypoxia promotes resistance to conventional treatments, as well as treatments for other diseases."

23. Please expand to explain why in the cases you describe "IPOXYN as a rechargeable soluble oxygen delivery agent [that] may not be restrained whereas well-oxygenated RBCs may be prevented from flow and delivery of oxygen."

24. Please expand to describe how IPOXYN would be used in veterinary applications.

Status of Development of IPOXYN, page 19

25. Please expand your disclosure to briefly summarize the preclinical studies that you have conducted to date, if any.

Competitive Products, page 20

26. Since your product has not undergone clinical trials, please clarify that the advantages described on page 20 are based on your belief, rather than testing, or, on the alternative, describe the nature of the tests that support your conclusions.

Marketing, page 21

27. You state that you believe IPOXYN is a "safe and effective" intervention for reversing acute hypoxia. Since preclinical safety and efficacy studies have not yet been conducted, the use of the words safe and effective does not seem appropriate. Please revise or clarify the basis for that statement.

28. You state that third parties have conducted animal tests that suggest intervention with IPOXYN significantly improved survival in induced canine anemia models. To the extent available, please quantify the data that led to the conclusion that IPOXYN "significantly improved" survival rates. Please also expand your description of these animal tests to describe your relationship with these third parties and, to the extent material, any contractual agreements you have with such third parties.

Employees, page 21

29. Please quantify the total number of employees you have. Please also disclose the total number of full-time employees.

Patents, Trademarks and Licenses, page 22

30. Please state the expiration date of your patents.

Certain Relationships and Related Transactions, page 27

31. Please file as exhibits the assignments of the issued patent, provisional patent and two trademarks executed by your CEO on December 10, 2009.

32. To the extent you entered in agreements with your CEO relating to the advancement of funds, including notes receivables, please file those agreements as exhibits to your filing.

Director and Executive Compensation, page 27

33. Please revise your summary compensation table to reflect for your CEO under the column "All other compensation" and "Total" the value of the grant of 8,000,000 shares.

Financial Statements

Report of Independent Registered Public Accounting Firm, page F-2

34. The report of Caturano and Company, P.C. states that the audit was conducted in accordance with the "auditing standards" of the PCAOB, as opposed to "the standards" of the PCAOB. Please have Caturano and Company tell us how their report complies with paragraph 3 of PCAOB Auditing Standard No. 1. Based on the language used in the report, it is unclear whether the audit was conducted in accordance with the related professional practice standards of the PCAOB. Otherwise, please provide us with a revised report that complies with paragraph 3.

Notes to Financial Statements

3. Stockholders' Equity

Common Stock, page F-8

35. You disclose that "eight million shares were issued to the Company's Chief Executive Officer (CEO), Chairman of the Board of Directors and co-founder, in exchange for a patent, a provisional patent and know-how fair valued at $2,200,000 or approximately $0.28 per share." Please explain to us your basis under GAAP for recording the patent, provisional patent and know-how at fair value rather than at the CEO's historical cost. Refer to the guidance in SAB Topic 5:G.

36. Further, it appears the stock issued to the co-founder for management advisory services should have been recorded at the fair value of the services since the fair value of the services received seems to be more reliably measurable than the fair value of the common stock issued. Please tell us the nature of the management advisory services provided during the period from August 24, 2009 (date of inception) to September 30, 2009 and the period services are be provided under the agreement with the co-founder. Explain to us how your accounting for stock issued for services complies with FASB ASC 505-50-30.

* * * * *

As appropriate, please amend your filing in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

- the company may not assert this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Sasha Parikh at (202) 551-3627 or Don Abbott at (202) 551-3608 if you have questions regarding comments on the financial statements and related matters. Please contact Sebastian Gomez Abero at (202) 551-3578 or Dan Greenspan at (202) 551-3623 with any other questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: David E. Dryer, Esq.
Mark A. Katzoff, Esq.
Seyfarth Shaw LLP
2 Seaport Lane
Boston, Massachusetts
02210