

July 28, 2005

Evan Levine
Chief Executive Officer
ADVENTRX Pharmaceuticals, Inc.
6725 Mesa Ridge Road, Suite 100
San Diego, California 92121

Re: ADVENTRX Pharmaceuticals, Inc.
Form 10-KSB for the Year Ended December 31, 2004
Proxy Statement filed May 20, 2005
File No. 1-32157

Dear Mr. Levine:

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 information so we may better understand your disclosure. After reviewing this information, we may 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

FORM 10-KSB

Risk Factors, page 19

1. Many of your risk factors could apply to any issuer. Please ensure that all risk factors in your filing describe your company's circumstances with specificity. We note the following examples:

- * In "It is uncertain that we will have access to future capital or government grants" on page 19, please describe the difficulties you would need to overcome to obtain a government grant.
- * In "We are not certain that we will be successful . . ." on page 19, please describe any material delays or difficulties your products have experienced in the development process.
- * In "We will face intense competition from other companies in the pharmaceutical industry" on page 20, please identify your principal competitors and their products that compete with yours.
- * In "Uncertainties related to health care reform measures may affect our success" on page 21, please identify any reform proposals that would materially affect on your business, and state where these proposals stand in the enactment process.
- * If you have received notice of another company's belief that you are infringing their patent, or if you have notified another company of your belief that they are infringing on your patents, please describe

the situation and potential consequences in "Protecting our proprietary rights is difficult and costly" on page 23.

* Please identify the key personnel you refer to in "Our success is dependent on our key personnel" and "We may be unable to retain skilled personnel and maintain key relationships" on page 23, and state whether you have written employment agreements with these individuals.

With the above guidance in mind, please re-evaluate all risk factors and tailor them more to your company.

Power of Attorney, page 35

2. We note the filing does not include the signature of your controller or principal accounting officer. Please include this signature in an amended Form 10-KSB. If Carrie Carlander, the CFO, also serves as the controller or principal accounting officer, her signature should be captioned as such in your amended filing. See General Instruction C.2 of Form 10-KSB.

PROXY STATEMENT

Certain Relationships and Related Transactions, page 12

3. It appears you did not file as an exhibit your agreement with Burnham Hill Partners. Please file this agreement with your amended Form 10-KSB. See Item 601(b)(10)(i)(A) of Regulation S-B.

* * *

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. 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 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 filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

* the company is responsible for the adequacy and accuracy of the disclosure in the filing;

* 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

* 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.

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 our review of your filing or in response
to
our comments on your filing.

Please contact Greg Belliston at (202) 551-3861 or me at
(202)
551-3715 with any questions.

Sincerely,

Jeffrey Riedler
Assistant Director

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Evan Levine
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