

SENT VIA FACSIMILE: 202-772-9217
AND VIA EDGAR

January 14, 2009

United States Securities and Exchange Commission
Division of Corporate Finance
100 F Street, N.E.
Mail Stop 6010
Washington, D.C. 20549

Attention: James Rosenberg, Senior Assistant Chief Accountant
Mary Mast, Senior Staff Accountant
Vanessa Robertson, Staff Accountant

Re: ADVENTRX Pharmaceuticals, Inc.
File Number: 001-32157
Form 10-K for the Fiscal Year Ended December 31, 2007
Filed March 17, 2008

Dear Mr. Rosenberg, Ms. Mast and Ms. Robertson:

Thank you for the voicemail left for Mark Bagnall on December 30, 2008. The voicemail was related to our initial response on November 12, 2008 to your comment letter of November 3, 2008 related to our Annual Report on Form 10-K for the year ended December 31, 2007 (the "2007 Form 10-K"). We submit to you the following additional comments in response to the voicemail. For your convenience, we have repeated your original comment, our initial response, a transcript of the voicemail and our additional comments. We have repeated your original comment only in the area in which we are providing you with additional information.

Original Comment: (2) Summary of Significant Accounting Policies

Change in Accounting Principle for Registration Payment Arrangement, page F-11

2. Paragraph 22 of FSP EITF 00-19-2 states that retrospective application is not permitted. Therefore, please explain to us why the financial statements for the years ended December 31, 2006 and 2005 were adjusted retrospectively. In addition, please explain to us why you reversed the loss on the fair value of warrants for 2006 and 2005. Include any reference to the specific authoritative literature that supports this treatment.

Original Company Response:

Effective January 1, 2007, we adopted the provisions of FASB Staff Position on No. EITF 00-19-2, *Accounting for Registration Payment Arrangements* ("FSP EITF 00-19-2"), to account for the Registration Payment Arrangement. FSP EITF 00-19-2 provides that the contingent obligation to make future payments or otherwise transfer consideration under a registration payment arrangement should be separately recognized and measured in accordance with Statement of Financial Accounting Standards ("FAS") No. 5, *Accounting for Contingencies*, which provides that loss contingencies should be recognized as liabilities if they are probable and reasonably estimable.

As reported in our Form 10-K for the year ended December 31, 2007, management determined that it was not probable that we would have any payment obligation under the Registration Payment Arrangement as of January 1, 2007 and December 31, 2007; therefore, no accrual for the contingent obligation was required under the provisions of FSP EITF 00-19-2.

Pursuant to paragraphs 17-19 of FSP EITF 00-19-2, the difference of \$12,239,688 between the carrying amount of the July 2005 Registration Payment Arrangement warranty liability as of December 31, 2006 of \$30,356,439 and the amount reclassified to equity upon the adoption of this FSP at January 1, 2007 of \$18,116,751 was recognized as a cumulative-effect adjustment. Following Example 7 from the Appendix of FSP EITF 00-19-2, the Company recorded the following journal entry for the fair value of the July 2005 Registration Payment Arrangement as of the adoption date:

| | |
|--------------------------------|--------------|
| Dr. Warrant Liability | \$30,356,439 |
| Cr. Retained Earnings | \$12,239,688 |
| Cr. Additional Paid in Capital | \$18,116,751 |

The Company also adjusted the comparative financial statements of prior periods to apply the new method retrospectively. This resulted in the warranty liability being removed from the balance sheet and the loss on the fair value of the warrants being removed from the income statements for 2006 and 2005. The adjustments were done based on the Company's interpretation of paragraph 21 of FSP EITF 00-19-2 and paragraphs 17-18 of Financial Accounting Standard No. 154 *Accounting Changes and Error Corrections* ("FAS 154").

Upon current review of paragraph 22 of FSP EITF 00-19-2, it appears that retrospective application was not appropriate. The Company will update its disclosure in the earlier of: 1) any SEC filing related to a debt or equity offering or 2) our Annual Report on Form 10-K for the year ended December 31, 2008, and will remove the retrospective adjustments from any prior years presented.

Transcript of Voicemail:

Please refer to your response to Comment 2. Please explain to us your consideration of whether this is a correction of an error. Please provide us with your quantitative and qualitative materiality analysis that supports your decision of whether prior period financial statements need to be restated to reflect these errors. Finally, please provide us with the adjustments you plan to record and what the revised financial statements and related disclosures will look like.

Additional Company Response:

The Company believes that prior period financial statements previously filed with the SEC do not need to be amended to reflect this correction of an error. However, we will restate the 2006 financial information in the earlier of (a) any SEC filing related to a debt or equity offering that requires disclosure of 2006 financial information or (b) our upcoming Form 10-K for the year ended December 31, 2008. In reaching this determination, the Company took into account the following:

- (1) The entry recorded in our most recent annual financial statements (and documented in our original response above) was appropriate. Notably, our balance sheet as of December 31, 2007 and our statement of operations for the year then ended are presented appropriately in our 2007 Form 10-K.
- (2) The changes we made to the originally filed financial statements in our 2007 Form 10-K, including the effect of removal of the warrant liability from the balance sheet for the year ended December 31, 2006 and the loss on the fair value of the warrants from the statement of operations for the years ended December 31, 2006 and 2005, respectively, were documented (with both the original and adjusted balances) in Note 2 to the financial statements in our 2007 Form 10-K.

We believe that amending prior period financial statements previously filed with the SEC to reflect their original disclosure will be confusing to investors, particularly in light of the fact that certain of the affected financial statements will not be included in our upcoming Form 10-K for the year ended December 31, 2008 (i.e., the balance sheet reflected in the Company's Form 10-K for the year ended December 31, 2008 will present only the years ended December 31, 2008 and 2007; 2005 financial information will not be presented).

With respect to prior period financial statements included in future filings with the SEC, we believe that investors are better-served and our financial statements will be more understandable if we include a note to the financial statements in future filings, as applicable, addressing the correction. In particular, in the statement of operations included in our upcoming Form 10-K for the year ended December 31, 2008, we will restate the loss on the fair value of the warrants for the year ended December 31, 2006 to its original reported amount and will include a description of the change, substantially as set forth below, in the notes to the financial statements:

Correction of an Error

On January 1, 2007, we adopted the provisions of FASB Staff Position on No. EITF 00-19-2, *Accounting for Registration Payment Arrangements* (“FSP EITF 00-19-2”). In December 2007, management determined that it was not probable that we would have any payment obligation under the July 2005 Registration Payment Arrangement; therefore, no accrual for contingent obligation was required under the provisions of FSP EITF 00-19-2. Accordingly, the warrant liability account was eliminated and the comparative condensed consolidated financial statements of the prior periods and as of December 31, 2006 were adjusted to apply the new method retrospectively.

The Company accounted for FSP EITF 00-19-2 appropriately by eliminating the warrant liability as of December 31, 2007, but upon further review in 2008, management determined that it was not correct to adjust the prior period comparative financial statements. Accordingly, the loss on the fair value of the warrants has been revised to its original balance for the year ended December 31, 2006 in the statement of operations.

As requested in the original comment letter, the Company acknowledges:

- 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.

If you have any further questions or wish to discuss the responses we have provided above, please call me at 858-552-0866 at your convenience.

Sincerely,

/s/ Patrick Keran

Patrick Keran

Vice President, Legal

cc: Mark Bagnall, former Executive Vice President and Chief Financial Officer