

Mail Stop 6010

July 21, 2008

Stephen B. Thompson
Chief Financial Officer
Access Pharmaceuticals, Inc.
2600 Stemmons Freeway, Suite 176
Dallas, TX 75207

**Re: Access Pharmaceuticals, Inc.
Supplemental Response to Form S-1 filed 7/3/08
File Number 333-149633**

Dear Mr. Thompson:

We have limited our review of your filing to those issues we have addressed in our 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.

Supplemental Response to Form S-1 filed 7/3/08

General

1. Please refile your response letter to include all tables provided in the hard-copy of your letter. Please include in your next amendment all tabular and qualitative disclosure you include in your response letter.

2. We note that you have disclosure in your supplemental response regarding Tables 1 through 5, and Exhibits A and B. However, these tables and exhibits are not attached to your public filing. Please amend your filing to include these tables and exhibits.
3. We note your response to Comment 2 and reissue the comment in part. Please expand Table 2 to include in your tabular disclosure the dollar amount of liquidated damages and dividends to be paid to selling shareholders that you describe in your response to Comment 2. Please provide footnote disclosure of the terms of each such payment. If you are unable to quantify the dollar amounts of dividends to be paid to selling shareholders, please describe the terms of the dividend near the tabular disclosure.
4. We note your response to Comment 3 and reissue the comment in part. Please read the heading in the last column to read profit (loss) on conversion.
5. We note your response to Comment 5. It does not appear that all the requested information has been presented. For example:
 - the resulting net proceeds to the issuer; and
 - the total amount of all possible payments and total discount presented as a percentage of the net proceeds to the issuer.

Additionally, you have responded by directing us to your responses to comments 1 and 2 and Table 1. Please include tabular disclosure presenting the information requested in comment 5.

6. We note your response to Comment 6 and reissue the comment. It is not sufficient to refer to previous registration statements to provide information regarding all prior securities transactions between the issuer and the selling shareholders, instead of providing the requested tabular disclosure.

Please provide us, with a view toward disclosure in the prospectus, with tabular disclosure of all prior securities transactions between the issuer (or any of its predecessors) and the selling shareholders, any affiliates of the selling shareholders, or any person with whom any selling shareholder has a contractual relationship regarding the transaction (or any predecessors of those persons), with the table including the following information disclosed separately for each transaction:

- the number of shares of the class of securities subject to the transaction that were outstanding prior to the transaction;

- the number of shares of the class of securities subject to the transaction that were outstanding prior to the transaction and held by persons other than the selling shareholder, affiliates of the company, or affiliates of the selling shareholder;
 - Revise the 2nd column heading titled “Date Acquired/Amount Due” to delete the reference to “Amount Due” as this does not appear to be presented in the column;
 - Revise the 4th column to include the number of shares issuable on the conversion of convertible notes at the time of the transaction;
 - the percentage of total issued and outstanding securities that were issued or issuable in the transaction (assuming full issuance), with the percentage calculated by taking the number of shares issued and outstanding prior to the applicable transaction and held by persons other than the selling shareholders, affiliates of the company, or affiliates of the selling shareholders, and dividing that number by the number of shares issued or issuable in connection with the applicable transaction;
 - Revise the fifth column heading to clarify that this was the market price; and
 - the current market price per share of the class of securities subject to the transaction (reverse split adjusted, if necessary).
7. Please refer to your response to Comment 7. Please disclose supplementally how you propose to present your response in your amended registration statement.
8. Please confirm that your amended registration statement will include the information provided in response to Comments 8, 9, and 11.

9. We note your response to Comment 12. Given the size relative to the number of shares outstanding held by non-affiliates, the nature of the offering and the selling security holders, the transaction appears to be a primary offering. Because you are not eligible to conduct a primary offering on Form S-3 you are not eligible to conduct a primary at-the-market offering under Rule 415(a)(4).

- Please file a registration statement for the “resale” offering at the time of each conversion because you are not eligible to conduct the offering on a delayed or continuous basis under Rule 415(a)(1)(x);
- Please identify the selling shareholders as underwriters in the registration statement; and
- Please include the price at which the underwriters will sell the securities.

Alternatively, reduce the size of your offering.

* * *

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.

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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.

Please contact Rose Zukin at (202) 551-3239 or me at (202) 551-3710 with any questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: John J. Concannon III, Esq.
Bingham McCutchen LLP
150 Federal Street
Boston, MA 02110