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January 17, 2012

VIA EDGAR AND FEDERAL EXPRESS

Jeffrey Riedler
Assistant Director
U.S. Securities and Exchange Commission
100 F. Street, N.E.
Washington, DC 20549-0404

**Re: Access Pharmaceuticals, Inc.
Form S-1
Filed December 9, 2011
File No. 333-178415**

Dear Mr. Riedler:

This letter is in response to comments received in the letter dated December 15, 2011 (the "Comment Letter") from the Staff (the "Staff") of the Securities and Exchange Commission (the "Commission") to Stephen B. Thompson, Chief Financial Officer of our client, Access Pharmaceuticals, Inc., a Delaware corporation ("we", "our", or the "Company"). We have reviewed the Comment Letter and the Company's responses are set forth below. For ease of reference our responses are numbered to correspond to the comment numbers in the Comment Letter and each comment contained in the Comment Letter is printed below in italics and is followed by the response of the Company.

Comment:

1 . *We note the following statement on page 16: "A description of . . . how each selling shareholder acquired the shares to be sold in this offering is detailed in the information immediately following this table." The information immediately following the table, however, does not contain a description of how each selling shareholder acquired the shares. Please revise the registration statement to clearly discuss the facts and circumstances of the private placement transactions through which each selling shareholder acquired the shares being registered for resale.*

Response:

The Company has added the requested disclosure to the registration statement.

Comment:

2 . *We note that you, the company's principal accounting officer, have signed the filing on behalf of the registrant but that you have not signed the filing in your capacity as principal accounting officer specifically, as required by Instruction 1 to the signatures section of Form S-1. Please amend the filing to include your signature on behalf of the registrant.*

Response:

The Company has added the requested signature to the registration statement.

Attached hereto is the written acknowledgement by the Company as requested by the Staff.

We also would like to inform the Staff that the Directors and Executive Officers sections were updated for 2011 compensation.

We would appreciate the opportunity to discuss any remaining questions or concerns with you at your convenience. I can be reached at 617.951.8874.

Sincerely yours,

John J. Concannon

cc: Jeffrey B. Davis, *Access Pharmaceuticals, Inc.*
Stephen B. Thompson, *Access Pharmaceuticals, Inc.*

January 17, 2012

Access Pharmaceuticals, Inc.
2600 Stemmons Freeway, Suite 176
Dallas, Texas 75207

Access Pharmaceuticals, Inc. hereby acknowledges with respect to its Registration Statement on Form S-1, File No. 333-178415 (the "Filing"):

- 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 staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

/s/ Stephen B. Thompson
Chief Financial Officer
