

ACCESS PHARMACEUTICALS, INC.

2600 Stemmons Frwy, Suite 176

Dallas, TX 75207

April 27, 2010

Via EDGAR and Facsimile

United States Securities and Exchange Commission
Division of Corporate Finance
100 F Street, NE
Washington, D.C. 20549
Attention: Bryan Pitko

**Re: Access Pharmaceuticals, Inc.
Post-effective Amendment No. 2 to Registration Statement on Form S-1
File No. 333-149633**

Ladies and Gentlemen:

Pursuant to Rule 461 of the Securities Act of 1933, as amended, and Rule 12(b)-6 of the Securities Exchange Act of 1934, as amended, Access Pharmaceuticals, Inc., a Delaware corporation (the "Company"), hereby requests that the effectiveness of the Company's above-referenced Post-effective Amendment No. 2 to Registration Statement on Form S-1, be accelerated to **4 p.m. Eastern Time on Thursday, April 29, 2010**, or as soon as practicable before or thereafter, unless you are orally or in writing notified to the contrary by the Company prior to such date and time.

The Company hereby acknowledges that:

- should the Securities and Exchange Commission (the "Commission") or the staff of the Commission (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.

Should you have any questions regarding this request, please do not hesitate to contact John J. Concannon (617-951-8874) of Bingham McCutchen LLP.

Sincerely,

ACCESS PHARMACEUTICALS, INC.

/s/ Stephen B. Thompson
Stephen B. Thompson
Chief Financial Officer

cc: John J. Concannon, *Bingham McCutchen LLP*