

SYNDAX PHARMACEUTICALS, INC.
400 Totten Pond Road, Suite 110
Waltham, Massachusetts 02451

February 29, 2016

VIA EDGAR

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549
Attn: Suzanne Hayes, Assistant Director

**Re: Syndax Pharmaceuticals, Inc.
Registration Statement on Form S-1, as amended (File No. 333-208861)
Request for Acceleration of Effective Date**

Dear Ms. Hayes:

Pursuant to Rule 461 of the General Rules and Regulations under the Securities Act of 1933, as amended, Syndax Pharmaceuticals, Inc. (the "Company") hereby requests that the Securities and Exchange Commission (the "Commission") accelerate the effective date of the above-referenced Registration Statement on Form S-1 (as amended to date, the "Registration Statement") and declare the Registration Statement effective as of 4:00 p.m. Eastern time, on March 2, 2016, or as soon thereafter as possible. This request for acceleration is subject, however, to your receiving a telephone call prior to such time from our legal counsel, Hogan Lovells US LLP, confirming this request.

Under separate cover, you will receive today a letter from the managing underwriters of the proposed offering joining in the Company's request for acceleration of the effectiveness of the Registration Statement.

In connection with this request for acceleration, the Company acknowledges 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 staff comments and the declaration of effectiveness as defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

[Signature page follows]

Very truly yours,

Syndax Pharmaceuticals, Inc.

/s/ Allan L. Shaw

By: Allan L. Shaw

Title: Chief Financial Officer, Treasurer and Secretary

[Signature Page to Acceleration Request]