

SYNDAX PHARMACEUTICALS, INC.
Building D, Floor 3
35 Gatehouse Drive
Waltham, Massachusetts 02451

April 14, 2017

Via EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Mail Stop 4720
Washington, D.C. 20549

Attn: Suzanne Hayes
Jeffrey Gabor

Re: **Syndax Pharmaceuticals, Inc.**
Registration Statement on Form S-3
File No. 333-217172

Acceleration Request

Requested Date: Thursday, April 20, 2017
Requested Time: 4:00 P.M. Eastern Daylight Time

Ladies and Gentlemen:

In accordance with Rule 461 under the Securities Act of 1933, as amended, the undersigned registrant (the "**Registrant**") hereby requests that the Securities and Exchange Commission (the "**Commission**") take appropriate action to cause the above-referenced Registration Statement on Form S-3 (File No. 333-217172) (the "**Registration Statement**") to become effective on April 20, 2017, at 4:00 p.m. Eastern Daylight Time, or as soon thereafter as is practicable, or at such later time as the Registrant may orally request via telephone call to the staff (the "**Staff**"). This request for acceleration is subject, however, to your receiving a telephone call prior to such time from Cooley LLP, counsel to the Registrant, confirming this request. The Registrant hereby authorizes each of Laura Berezin, Jaime Chase and Sara Semnani of Cooley LLP to make such request on its behalf.

[Signature page follows]

Very truly yours,

Syndax Pharmaceuticals, Inc.

By: /s/ Luke J. Albrecht

Luke J. Albrecht

Vice President, General Counsel and Secretary

cc: Briggs W. Morrison, M.D., Syndax Pharmaceuticals, Inc.
Richard P. Shea, Syndax Pharmaceuticals, Inc.
Michael Metzger, Syndax Pharmaceuticals, Inc.
Laura Berezin, Cooley LLP
Daniel Goldberg, Cooley LLP
Jaime Chase, Cooley LLP
Sara Semnani, Cooley LLP