September 6, 2019

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. 333-233564

Acceleration RequestRequested Date:Tuesday, September 10, 2019Requested 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. 333-233564) (the "*Registration Statement*") to become effective on September 10, 2019, 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 Mandy Hix of Cooley LLP to make such request on its behalf.

[Signature page follows]

Via EDGAR

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 Robert Phillips, Cooley LLP Jaime Chase, Cooley LLP Mandy Hix, Cooley LLP