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October 2, 2015

BY COURIER

Ms. Suzanne Hayes
Assistant Director
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: Syndax Pharmaceuticals, Inc.
Confidential Draft Registration Statement on Form S-1
Submitted August 25, 2015, and as amended October 2, 2015
CIK No. 0001395937

Dear Ms. Hayes:

On behalf of Syndax Pharmaceuticals, Inc. (the "**Company**"), this letter is in response to the letter from the Staff (the "**Staff**"), dated September 22, 2015 (the "**Comment Letter**"), to Briggs W. Morrison, M.D., relating to the Company's confidential draft registration statement on Form S-1 (the "**Draft Registration Statement**"), as submitted to the Securities and Exchange Commission (the "**Commission**") on August 25, 2015. The Company is concurrently confidentially submitting Amendment No. 1 to the Company's Draft Registration Statement ("**Amendment No. 1**"), which incorporates responses to the Comment Letter. For the convenience of the Staff, we are supplementally providing a copy of Amendment No. 1 marked to show changes from the Draft Registration Statement.

For ease of reference, each of the Staff's comments is set forth in italic type immediately before the corresponding response submitted on behalf of the Company, and the numbering below corresponds to the numbering in the Comment Letter. References to page numbers in the Company's responses refer to page numbers in Amendment No. 1.

Prospectus Summary

Our Company, page 1

1. *Please explain what an immune checkpoint inhibitor is at your first reference in the summary and describe how such inhibitors work with entinostat as a combination cancer therapy. Please also explain the abbreviations for PD-1 and PDL-1.*

The Company respectfully acknowledges the Staff's comment and has revised its disclosure on pages 1 and 2 of Amendment No. 1.

2. *Please revise your disclosure to include a pipeline table illustrating your clinical development programs for entinostat, the specific indications being pursued, the phase of development, the sponsor, and timing of expected data from trials.*

   The Company respectfully acknowledges the Staff's comment and has revised its disclosure on pages 3 and 83 of Amendment No. 1 to include a pipeline table.

3. *We note your disclosure that you are currently evaluating entinostat in combination with Keytruda in a Phase 1b/2 trial. Please revise your disclosure to indicate whether you have commenced patient enrollment for this trial.*

   The Company respectfully acknowledges the Staff's comment and has revised its disclosure on page 2 of Amendment No. 1 to include the date the Company commenced patient enrollment for this trial.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies and Use of Estimates

Stock-Based Compensation and Common Stock Valuation, page 65

4. *We may have additional comments on your accounting for equity issuances including stock compensation and beneficial conversion features. Once you have an estimated offering price, please provide us an analysis explaining the reasons for the differences between recent valuations of your common stock leading up to the IPO and the estimated offering price.*

   The Company respectfully acknowledges the Staff's comment and will supplementally provide the requested information once the IPO price range has been determined.

Executive and Director Compensation

Summary Compensation Table, page 129

5. *Please revise your table to include summary compensation information for your named executive officers for the fiscal year ended December 31, 2013. Please note that Instruction 1 to Item 402(n) requires disclosure of information prior to the last completed fiscal year if such information was previously required in response to a filing requirement. In this respect, we note that your prior Form S-1 filing included 2013 summary compensation information.*

   The Company respectfully acknowledges the Staff's comment and has revised its disclosure on page 131 of Amendment No. 1 to include the 2013 summary compensation information.

Notes to Consolidated Financial Statements

3. Significant Agreements

Kyowa Hakko Kirin Co., Ltd., page F-15

6. *Please tell us why you have combined the license, clinical supply and manufacturing obligation and right to access and use materials and data deliverables into one unit of account. Please cite the authoritative literature used to reach your conclusion.*

   The Company respectfully acknowledges the Staff's comment and advises the Staff of the following. As disclosed on page F-16 of Amendment No. 1, the Company concluded that the agreement is

within the scope of ASC No. 605-25, *Revenue Recognition-Multiple-Element Arrangements*. The Company identified separate units of accounting within the multiple element arrangement based on the guidance in ASC 605-25-25-5, which states:

> In an arrangement with multiple deliverables, the delivered item or items shall be considered a separate unit of accounting if both of the following criteria are met:
>
> a. The delivered item or items have value to the customer on a standalone basis. The item or items have value on a standalone basis if they are sold separately by any vendor or the customer could resell the delivered item(s) on a standalone basis. In the context of a customer's ability to resell the delivered item(s), this criterion does not require the existence of an observable market for the deliverable(s).
>
> b. [Subparagraph superseded by Accounting Standards Update No. 2009-13]
>
> c. If the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item or items is considered probable and substantially in the control of the vendor.

As discussed more fully below, the Company concluded that the license does not have standalone value without: i) the clinical supply and manufacturing obligation; and ii) the right to access and use materials and data.

As the license was delivered at the onset of the arrangement, the Company evaluated whether it should be considered a separate unit of accounting in accordance with ASC 605-25-25-5. In assessing whether the license has standalone value to the customer, Kyowa Hakko Kirin Co., Ltd. ("**KHK**"), the Company determined that KHK could not obtain the benefit of the license without the manufacturing of clinical supply. Specifically, in order to obtain the benefit of the license, KHK requires product supply to pursue any clinical development or commercialization activities with the intellectual property subject to the license. The license granted does not provide KHK with manufacturing rights as all rights associated with manufacturing, whether for clinical supply or commercial use, were retained by the Company. In fact, the agreement explicitly precludes KHK from using any other party for manufacturing or performing the manufacturing itself (i.e., KHK cannot obtain the clinical supply from any party other than the Company). As a result, KHK must obtain the clinical supply materials from the Company, which significantly limits the ability for KHK to use the license for its intended use on a standalone basis. Consequently, the license does not have standalone value without the clinical supply, which can only be provided by the Company. As a result, both of the conditions in ASC 605-25-25-5 are not satisfied. Therefore, the license does not qualify for separation from the clinical supply and manufacturing obligation.

The Company then considered whether the license and manufacturing of clinical supply had standalone value on a combined basis separate from the right to access and use materials and data deliverable. The right to access and use materials and data deliverable provides KHK with access to certain know-how, development data and regulatory materials that are also necessary to the overall development and commercialization activities. The know-how, development data and regulatory materials to be provided to the customer are necessary for preparing the application for and developing the associated processes around clinical trials related to any product(s) that are covered by the license pursued by the customer. Consequently, similar to the access to clinical supply, KHK cannot fully exploit the value of the license conveyed without the ability to use and reference information and data that will be provided through the right to access and use materials and data deliverable. As a result, the Company has concluded that without receipt of the know-how,

development data and regulatory materials underlying the right to access and use materials and data deliverable, KHK would be significantly limited in its ability to use the license for its intended use on a standalone basis. Accordingly, the Company has concluded that the license could not be sold separately or resold by the customer on a standalone basis without the accompanying know-how, development data and regulatory materials, which are controlled by the Company. Therefore, the Company has determined that the license does not have value to KHK on a standalone basis from the right to access and use materials and data deliverable due to the limitations that restrict KHK from using the license for its intended purpose without the other deliverables in the arrangement. As a result, both of the conditions in ASC 605-25-25-5 are not satisfied. Therefore, the combined license and manufacturing of clinical supply deliverable does not qualify for separation from the right to access and use materials and data deliverable.

Therefore, the Company believes that the license unit of accounting has standalone value on a combined basis as it provides KHK with the licenses necessary to develop and commercialize a product, access to know-how, development data, and regulatory materials in order to fully maximize its value, and the clinical supply in order to complete its development efforts.

Notes to Condensed Consolidated Financial Statements

8. Convertible Preferred Stock, page F-48

7. *Please tell us why you have recorded the Series B-1 preferred stock issued to KHK and the Series C-1 preferred stock at the full redemption value. Please cite the authoritative literature used to reach your conclusion.*

The Company respectfully acknowledges the Staff's comment and advises the Staff that each of the Company's Series B-1 preferred stock and Series C-1 preferred stock has a liquidation clause that provides for preferential payment to preferred stockholders upon a liquidation event. A liquidation event includes a i) liquidation, dissolution or winding-up of the company, ii) sale, conveyance, license or other disposition of all or substantially all of the assets, property or business of the company, or iii) merger or consolidation with or into any other corporation if, as a result of such merger or consolidation, the holders of the common stock and preferred stock prior to such merger or consolidation do not hold at least fifty percent (50%) of the combined voting power of the surviving corporation. Liquidation clauses (ii) and (iii) can be enacted by approval of a majority of the Company's board of directors. The approval of liquidation clauses (ii) and (iii) by the Company's board of directors will cause the Company to pay an amount equal to the liquidation preference to the holders of the Company's preferred stock before any distribution can be made to its common stockholders. Under these circumstances, the Company considers such a liquidation event a deemed liquidation event (a "**Deemed Liquidation**").

The Company further considered the voting rights of the holders of the Company's preferred stock. The Company respectfully notes that holders of the Company's Series A-1, B-1 and C-1 (the "**Preferred Stock**") have the right to elect five (5) members of the Company's board of directors, which consists of a total of nine (9) board seats. Given these facts, the Company concludes that holders of the Preferred Stock control a majority of the board of directors and, accordingly, they control the change-in-control decisions that could trigger a Deemed Liquidation.

The Company considered the examples in paragraphs 7 and 10 of ASC 480-10-S99-3A, *SEC Staff Announcement: Classification and Measurement of Redeemable Securities*, which state (**emphasis added**):

7. Example 2. A preferred security that is not required to be classified as a liability under other applicable GAAP may have a redemption provision that states it may be called by the issuer upon an affirmative vote by the majority of its board of directors. While some might view the decision to call the security as an event that is within the control of the company because the governance structure of the company is vested with the power to avoid redemption, **if the preferred security holders control a majority of the votes of the board of directors through direct representation on the board of directors or through other rights, the preferred security is redeemable at the option of the holder and classification in temporary equity is required.** In other words, any provision that requires approval by the board of directors cannot be assumed to be within the control of the issuer. All of the relevant facts and circumstances should be considered.

10. Example 5. A preferred security may have a provision that the decision by the issuing company to sell all or substantially all of a company's assets and a subsequent distribution to common stockholders triggers redemption of the security. **In this case, the security would be appropriately classified in permanent equity if the preferred stockholders cannot trigger or otherwise require the sale of the assets through representation on the board of directors, or through other rights, because the decision to sell all or substantially all of the issuer's assets and the distribution to common stockholders is solely within the issuer' control**. In other words, if there could not be a "hostile" asset sale whereby all or substantially all of the issuer's assets are sold, and a dividend or other distribution is declared on the issuer's common stock, without the issuer's approval, then classifying the security in permanent equity would be appropriate.

The Company concluded that the Company's Series B-1 preferred stock and Series C-1 preferred stock should be classified outside of permanent equity as (1) the holders of Preferred Stock control a majority of the votes of the board of directors through direct representation on the board of directors and (2) the holders of Preferred Stock control the change-in-control decision which could cause a Deemed Liquidation of the Company's convertible preferred stock.

The Company records the Series B-1 preferred stock and Series C-1 preferred stock at its maximum redemption amount in consideration of the guidance in paragraphs 14 and 15 of ASC 480-10-S99-3A. As indicated in paragraphs 14 and 15, the requirement to subsequently remeasure a redeemable equity security to its redemption amount is dependent on whether the security is currently redeemable or it is probable that the security will become redeemable. As described above, the holders of the Preferred Stock control the vote of the Company's board of directors, thereby allowing such holders of Preferred Stock to cause a Deemed Liquidation under ASC 480-10-S99-3A, which would in turn, trigger the payment of the liquidation preference amounts. Accordingly, the Company believes the Series B-1 preferred stock and Series C-1 preferred stock is currently redeemable.

The Company believes this view is consistent with paragraph 7 of ASC 480-10-S99-3A, which explains that when the holders of a redeemable equity security control the board of directors (or voting power) of the issuing entity, the security is, in substance, redeemable at the option of the holder (i.e., redemption is not contingent).

Other Comments

8. *Please submit all outstanding exhibits as soon as practicable. We may have further comments upon examination of these exhibits.*

   The Company respectfully acknowledges the Staff's comment and has submitted with Amendment No. 1 each exhibit that is currently available to the Company and that is required to be filed pursuant to Item 601(a) of Regulation S-K. The Company intends to submit all remaining exhibits sufficiently in advance of effectiveness of its Registration Statement on Form S-1 to provide the Staff time to review such exhibits and to enable the Company to respond to any additional comments the Staff may have as a result of the inclusion of such exhibits.

9. *Please provide us proofs of all graphic, visual or photographic information you will provide in the printed prospectus prior to its use, for example in a preliminary prospectus. Please note that we may have comments regarding this material.*

   The Company respectfully acknowledges the Staff's comment and advises the Staff that it does not intend to use any graphic, visual or photographic information in the prospectus other than the Company's logo (located on the outside front and back covers of the prospectus) and tabular and other graphics that are presently included in Amendment No. 1. If the Company determines that it will include any additional graphic, visual or photographic information, it will promptly provide such information to the Staff on a supplemental basis. The Company respectfully acknowledges that the Staff may have further comments regarding any such information.

10. *Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.*

    The Company respectfully acknowledges the Staff's comment. The Company has not provided, nor has it authorized anyone to provide on its behalf, any written communications, as defined in Rule 405 under the Securities Act, to potential investors in reliance on Section 5(d) of the Securities Act. The underwriters participating in the Company's initial public offering have confirmed to the Company that they have not published or distributed any research reports about the Company in reliance upon Section 2(a)(3) of the Securities Act added by Section 105(a) of the Jumpstart Our Business Startups Act.

11. *We note that you have requested confidential treatment for certain portions of some of your exhibits. Please be advised that any comments we may have on your application for confidential treatment will be sent to you under separate cover. Our review of your registration statement will not be complete until all comments related to your confidential treatment request have been cleared.*

    The Company respectfully acknowledges the Staff's comment.

* * *

The Company respectfully requests the Staff's assistance in completing the review of Amendment No. 1 as soon as possible. Please advise us if we can provide any further information or assistance to facilitate your review. If the Staff should have any questions, or would like further information, concerning any of the responses above, please do not hesitate to contact the undersigned at (650) 463-4194 or Jaime L. Chase at (202) 637-5457. We thank you in advance for your attention to the above.

Sincerely,

/s/ Jaime L. Chase

Jaime L. Chase

cc: Briggs W. Morrison, M.D., Syndax Pharmaceuticals, Inc.
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