PROSPECTUS SUPPLEMENT (to Prospectus dated April 20, 2017)

\$25,000,000



Common Stock

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering 2,021,018 shares of our common stock at an offering price of \$12.37 per share. The shares of common stock are being sold directly to Biotechnology Value Fund, L.P., or BVF, and certain entities affiliated with BVF, pursuant to a purchase agreement dated October 17, 2017.

Our common stock is listed on The NASDAQ Global Select Market under the symbol "SNDX." On October 16, 2017, the last reported sale price of our common stock was \$12.76 per share.

The common stock are being offered directly to investors without a placement agent or underwriter. We are not paying underwriting discounts or commissions in connection with the offering. The gross proceeds to us before expenses will be approximately \$25,000,000. We estimate the total expenses of this offering will be approximately \$175,000.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" and in our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017, which is incorporated by reference into this prospectus supplement and the accompanying prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per	
	Share	Total
Offering price and proceeds, before expenses, to us	\$ 12.37	\$ 24,999,992.66

Delivery of the shares is expected to be made on or about October 20, 2017.

The date of this prospectus supplement is October 17, 2017.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. The prospectus supplement describes the specific terms of this offering and also adds to and updates the information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The accompanying prospectus gives more general information, some of which may not apply to this offering. If there is a difference between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference, you should rely on the information in this prospectus supplement. Generally, when we refer to the prospectus, we are referring to this prospectus supplement and the accompanying prospectus combined.

We have not authorized anyone to provide you with information different than or inconsistent with the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents, regardless of the time of delivery of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless the context indicates otherwise, references in this prospectus to "Syndax," "the Company," "we," "us," "our" and similar references refer to Syndax Pharmaceuticals, Inc. and its wholly owned subsidiaries.

PROSPECTUS SUPPLEMENT SUMMARY

The following summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, you should read and consider carefully the more detailed information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, including the factors described under the heading "Risk Factors," as well as the information included in any free writing prospectus that we have authorized for use in connection with this offering.

Company Overview

We are a clinical stage biopharmaceutical company developing an innovative pipeline of combination therapies in multiple cancer indications. Our lead product candidate, entinostat, is currently being evaluated in a Phase 3 clinical trial for advanced hormone receptor positive, or HR+, human epidermal growth factor receptor 2 negative, or HER2-, breast cancer. Entinostat was granted Breakthrough Therapy designation by the U.S. Food and Drug Administration, or the FDA, following positive results from our Phase 2b clinical trial, ENCORE 301. We are developing entinostat, which has direct effects on both cancer cells and immune regulatory cells, and SNDX-6352, a monoclonal antibody that targets the colony stimulating factor-1 receptor, or CSF-1R, to enhance the body's immune response on tumors that have shown sensitivity to immunotherapy. We are evaluating entinostat as a combination therapeutic in Phase 1b/2 clinical trials with Merck & Co., Inc., or Merck, for non-small cell lung cancer, melanoma and colorectal cancer; with Genentech, Inc., or Genentech, for triple negative breast cancer, or TNBC; and with Merck KGaA, Darmstadt, Germany, or Merck KGaA, and Pfizer Inc., or Pfizer, for ovarian cancer. We acquired the exclusive rights to SNDX-6352 in July 2016 and are evaluating it in a single ascending dose Phase 1 clinical trial. We plan to continue to leverage the technical and business expertise of our management team and scientific collaborators to license, acquire and develop additional cancer therapies to expand our pipeline.

Entinostat

Entinostat is our oral, small molecule product candidate that has direct effects on both cancer cells and immune regulatory cells, potentially enhancing the body's immune response to tumors. The favorable safety profile of entinostat has been demonstrated in clinical trials in more than 1,000 cancer patients. We believe that, based on its mechanism of action, entinostat may have broad applications in additional tumor types, including head and neck, bladder and renal cell, which are immuno-responsive, or sensitive to immunotherapy.

Immuno-oncology is an emerging field of cancer medicine that has focused on the development of therapeutic approaches designed to activate the immune system to find and destroy cancer cells. Many tumors have the ability to evade the immune system through direct cellular interactions and recruitment of immuno-suppressive cells to the area surrounding the tumor. One such evasion mechanism is through the expression of proteins known as checkpoint proteins, such as programmed cell death protein ligand 1, or PD-L1, on the cancer cell surface. These checkpoint proteins bind to a corresponding receptor known as programmed cell death protein 1, or PD-1, which is expressed on particular immune cells known as cytotoxic T cells. Through this binding process, cytotoxic T cells are blocked from killing cancer cells. Antibodies known as immune checkpoint inhibitors block the interaction between PD-1 and PD-L1 to restore the ability of cytotoxic T cells to kill cancer cells and have shown significant clinical benefit in treating certain cancers. We believe that entinostat acts on a different tumor-evasion mechanism than is targeted by most other immunotherapies in development. Instead of focusing on the interaction between the T cell and the tumor, entinostat has been observed to decrease the population of immuno-suppressive cells known as myeloid-derived suppressor cells, or MDSCs, and regulatory T cells, or Tregs, which localize in the area surrounding the tumor and block T cells from killing cancer cells.

We believe entinostat, a Class 1-specific histone deacetylase, or HDAC, inhibitor, is the therapy most advanced in development that can directly reduce both the number and activity of MDSCs and Tregs while sparing the cytotoxic T cells. Through blocking the immuno-suppressive effects of MDSCs and Tregs, we believe entinostat has the potential to be used synergistically with therapies such as immune checkpoint inhibitors, resulting in the increased ability of the T cells to attack the tumor. Through this important effect on MDSCs and Tregs, entinostat has the potential to be used synergistically with therapies working to stimulate the immune system. The long half-life of entinostat allows for continuous exposure to therapy potentially resulting in positive immuno-modulatory effects without corresponding cytotoxic effects. Another benefit of entinostat's long half-life is the potential to minimize the frequency of dosing and reduce the severity and frequency of adverse events.

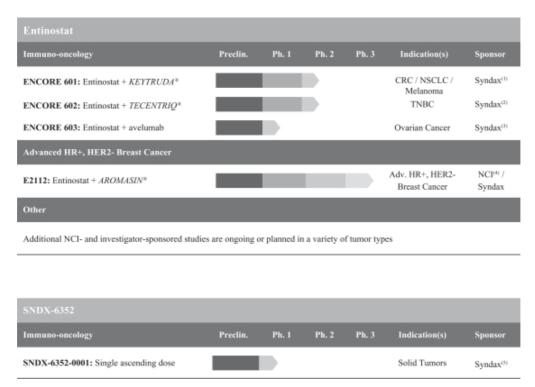
SNDX-6352

SNDX-6352 is a humanized monoclonal antibody that binds with high affinity to CSF-1R. CSF-1R is expressed on the surface of specific immuno-suppressive cells (e.g., tumor-associated macrophages or TAMs) known to play a role in the growth, survival, and metastases of cancer. Inhibition of CSF-1R is thought to disrupt the activity of TAMs, resulting in a decrease in the immunosuppressive environment immediately surrounding the tumor, or tumor micro-environment. This mode of action is thought to make CSF-1R inhibitors well suited for use in combination with checkpoint inhibitors, particularly in cancers where there may be limited activity of immune checkpoint inhibitors as monotherapy.

SNDX-6352 is an immunoglobulin G subclass 4, or IgG4, isotype that binds to the ligand binding domain of CSF-1R, blocking the binding and consequent activation by both natural ligands interleukin-34, or IL-34, and colony stimulating factor-1, or CSF-1, and disrupting TAM activity. We believe that the Ig subtype may provide differentiation in terms of safety and/or efficacy of the antibodies as single agent or in combinations. It is through this mechanism that we believe SNDX-6352 can decrease the ability of the tumor to grow and spread to other parts of the body. We believe that SNDX-6352 has the potential to be used to treat a variety of cancers in combination with entinostat and with other oncology agents, including immune checkpoint inhibitors, radiation, and chemotherapy.

Clinical Development Programs

The following table sets forth information pertaining to our principal clinical trials for (1) entinostat with our initial focus on advancing ENCORE 601, ENCORE 602 and ENCORE 603 in immuno-oncology, (2) entinostat in E2112 in HR+, HER2- breast cancer and (3) SNDX-6352 in immuno-oncology.



- (1) Conducted pursuant to an Investigational New Drug, or IND, application, which was filed with the FDA by Syndax Pharmaceuticals, Inc. on April 20, 2015.
- (2) Conducted pursuant to an IND application, which was filed with the FDA by Syndax Pharmaceuticals, Inc. on January 26, 2016.
- (3) Conducted pursuant to an IND application, which was filed with the FDA by Syndax Pharmaceuticals, Inc. on September 1, 2016.
- (4) Conducted pursuant to an IND application, which was filed with the FDA by the NCI on October 24, 2013.
- (5) This trial is in the planning phase and as such an IND has not yet been filed.

Recent Events

• On October 13, 2017, we entered into a license agreement with Vitae Pharmaceuticals, Inc., a subsidiary of Allergan plc, or Allergan, under which Allergan granted to us a worldwide, sublicenseable, exclusive license to a portfolio of preclinical, orally-available small molecule inhibitors of the interaction of Menin with the Mixed Lineage Leukemia, or MLL, protein, which we refer to as the Menin Assets. Concurrently with the development of entinostat and SNDX-6352, we are also developing the Menin Assets to potentially aid in the treatment of a genetically-defined subset of acute leukemias with chromosomal rearrangements in the MLL gene, or MLL-r. We expect to begin clinical studies of the Menin Assets during 2019.

• In April 2017, we entered into a sales agreement with Cowen and Company, LLC, or Cowen, under which we may issue and sell shares of our common stock having aggregate sales proceeds of up to \$50.0 million from time to time through Cowen, acting as agent, in a series of one or more at the market equity offerings, or the ATM Program. As of September 30, 2017, we have sold 92,511 shares of common stock pursuant to the ATM Program for gross proceeds of \$1.2 million, resulting in net proceeds of approximately \$1.1 million after deducting sales commissions and offering expenses. As of September 30, 2017, \$48.8 million of common stock remained available for sale under the ATM Program.

Clinical Development Updates

- ECOG-ACRIN Cancer Research Group, sponsor of E2112, the Phase 3 registration trial of entinostat plus exemestane in advanced HR+, HER2- breast cancer, expects the progression free survival analysis to be available in the first half of 2018 directly following completion of enrollment. As of the end of September, the trial was 81% enrolled.
- Enrollment in the second stage of the PD-(L)1 refractory melanoma cohort of ENCORE 601 completed in the third quarter of 2017, and enrollment in the second stage of the PD-(L)1 refractory NSCLC cohort of ENCORE 601 is expected to complete in the fourth quarter. We are presenting data from stage one of the NSCLC cohorts, as well as biomarker data from the melanoma cohort, at the Society of Immunotherapy of Cancer Congress in November 2017, and we expect to present the full trial data from both the pretreated NSCLC and melanoma cohorts at a medical congress in the first half of 2018.
- Data from the cohort of NSCLC patients naïve to PD-1 or PD-L1 therapy, continues to mature, with several patients remaining on entinostat-Keytruda combination therapy with stable disease. We anticipate making a final determination as to whether to expand the cohort of NSCLC patients naïve to PD-1 or PD-L1 therapy in the fourth quarter of 2017.
- Enrollment in the first stage of the microsatellite stable colorectal cancer, or CRC, cohort of ENCORE 601 was completed in the third quarter 2017. This new cohort, announced in April 2017, employs a Simon two-stage design enrolling 13 patients in the first stage, and requires at least two confirmed objective responses to proceed to the second stage. We anticipate making a determination as to whether to expand into the second stage of the CRC cohort in the first half of 2018.
- Enrollment is also progressing in the two additional trials aimed at exploring the ability of entinostat to enhance the efficacy of PD-L1 inhibitor therapies, ENCORE 602 and ENCORE 603. ENCORE 602, the Phase 1b/2 clinical trial evaluating the combination of entinostat plus Genentech's PD-L1 inhibitor, Tecentriq® (atezolizumab), in patients with triple negative breast cancer, is expected to complete enrollment of the Phase 2 portion in the first half of 2018. ENCORE 603 is our collaboration with Ares Trading, S.A., a subsidiary of Merck KGaA, and Pfizer to evaluate the safety, tolerability and preliminary efficacy of entinostat in combination with the investigational monoclonal antibody targeting PD-L1, avelumab, in a Phase 1b/2 clinical trial of patients with ovarian cancer. This trial began enrolling patients into the Phase 2 portion during the third quarter of 2017 and is expected to complete enrollment in the first half of 2018.
- In September 2017, we dosed the first patient in the multiple ascending dose trial in cancer patients in the Phase 1 clinical trial of SNDX-6352, our anti-CSF-1R monoclonal antibody, to determine the recommended Phase 2 dosing for further clinical studies.

Corporate Information

We were incorporated in Delaware in 2005. In 2011, we established a wholly owned subsidiary in the United Kingdom and in 2014 we established a wholly owned U.S. subsidiary. Our principal executive offices are located at 35 Gatehouse Drive, Building D, Floor 3, Waltham, Massachusetts 02451 and our telephone number is

(781) 419-1400. Our common stock is listed on the NASDAQ Global Select Market under the symbol "SNDX." Our corporate website address is www.syndax.com. Information contained on or accessible through our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our securities.

"Syndax" is a registered trademark and the "Syndax" and "Syndax Pharmaceuticals" logos are unregistered trademarks of the company. This prospectus also contains registered marks, trademarks and trade names of other companies. All other trademarks, registered marks and trade names appearing in this prospectus are the property of their respective holders.

Implications of Being an Emerging Growth Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. These provisions include:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding
 mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial
 statements;
- · reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- not being required to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until December 31, 2021 or such earlier time that we no longer qualify as an emerging growth company. We would cease to be an emerging growth company if we have more than \$1.07 billion in annual revenues, have more than \$700 million in market value of our capital stock held by non-affiliates, or issue more than \$1.0 billion of non-convertible debt over a three-year period. We may choose to take advantage of some but not all of these reduced burdens. For example, we have taken advantage of the reduced reporting requirements with respect to disclosure regarding our executive compensation arrangements, have presented only two years of audited financial statements and only two years of related "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure in our public filings, and have taken advantage of the exemption from auditor attestation on the effectiveness of our internal control over financial reporting. Accordingly, the information that we provide stockholders may be different than you might obtain from other public companies in which you hold equity interests.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of delayed adoption of new or revised accounting standards and, therefore, we will be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not emerging growth companies.

THE OFFERING

Common stock to be offered by us

2,021,018 shares

Common stock to be outstanding immediately following this offering

24,240,861 shares

Use of proceeds

We intend to use the net proceeds from the offering to: (i) fund our pipeline of development programs, in particular: entinostat as an immune-modulatory agent, which we are evaluating as a combination therapeutic in multiple Phase 1b/2 clinical trials across a range of tumor types; entinostat for HR+, HER2-breast cancer, which is enrolling a Phase 3 clinical trial with sponsorship and funding support from the NCI and which we continue to provide certain financial and operational support; SNDX-6352, which is currently enrolling a Phase 1 multiple ascending dose trial in cancer patients; and clinical trials of the Menin Assets, which we expect to initiate in 2019; (ii) opportunistically acquire or invest in businesses, products or technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus supplement; and (iii) for working capital and general corporate purposes. See "Use of Proceeds."

Risk factors

Investing in our common stock involves a high degree of risk. See "Risk Factors" and other information included in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock.

NASDAQ Global Select Market symbol

SNDX

The above discussion is based on 22,219,843 shares of our common stock outstanding as of June 30, 2017, and excludes:

- 2,132,323 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2017 under our 2007 Stock Plan, as amended, or 2007 Plan, at a weighted average exercise price of \$8.28 per share;
- 1,149,321 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2017 under our 2015 Omnibus Incentive Plan, or 2015 Plan, at a weighted average exercise price of \$10.88 per share;
- 357,840 shares of our common stock issuable upon the exercise of a warrant issued to Bayer on March 26, 2007, or the Bayer Warrant, which warrant is expected to remain outstanding upon completion of this offering.
- 1,427,340 shares of common stock reserved for future issuance under our 2015 Plan, plus any additional shares of our common stock that may become available under our 2015 Plan;

- 432,237 shares of our common stock reserved for issuance under our 2015 Employee Stock Purchase Plan, or ESPP, as well as any future increases in the number of shares of our common stock reserved for issuance under the ESPP; and
- 92,511 shares of our common stock sold pursuant to our ATM Program.

In addition, up to \$48.8 million of common stock may be issued pursuant to our ATM Program with Cowen and Company, LLC.

Except as otherwise indicated, the information in this prospectus supplement assumes no exercise of the outstanding stock options.

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the following risk factors and the risk factors discussed under the section entitled "Risk Factors" contained in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, which are incorporated by reference into this prospectus supplement and accompanying prospectus in their entirety, together with all of the other information contained in this prospectus supplement and the accompanying prospectus or incorporated by reference into this prospectus supplement and the accompanying prospectus. The risks and uncertainties described in these documents are not the only ones we face. Other risks and uncertainties, including those that we do not currently consider material, may impair our business. If any of the risks discussed below or in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 actually occur, our business, financial condition, operating results or cash flows could be materially adversely affected. This could cause the value of our common stock to decline, and you may lose all or part of your investment.

Risks Related to this Offering

If you purchase our common stock in this offering, you will experience immediate and substantial dilution in investment. You will experience further dilution if we issue additional equity securities in future financing transactions.

Since the public offering price per share of our common stock is higher than the net tangible book value per share of our common stock, you will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase in this offering. As a result, investors purchasing shares of common stock in this offering will incur immediate dilution of approximately \$6.84 per share, based upon the public offering price of \$12.37 per share and our net tangible book value as of June 30, 2017, after giving effect to this offering. See the section titled "Dilution" below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

In addition, we have a significant number of stock options outstanding. To the extent that outstanding stock options have been or may be exercised, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders or result in downward pressure on the price of our common stock.

Our management might apply the net proceeds from this offering in ways with which you do not agree and in ways that may impair the value of your investment.

We currently intend to use the net proceeds from this offering primarily to fund the research and development, acquire or invest in businesses, products or technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus, and for working capital and general corporate purposes. Pending the use of net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States. Our management has broad discretion as to the use of these proceeds and you will be relying on the judgment of our management regarding the application of these proceeds. We might apply these proceeds in ways with which you do not agree, or in ways that do not yield a favorable return. If our management applies these proceeds in a manner that does not yield a significant return, if any, on our investment of these net proceeds, it could compromise our ability to pursue our growth strategy and adversely affect the market price of our common stock.

Risks Related to Intellectual Property

If we breach the Allergan license agreement related to the Menin Assets or if the Allergan license agreement is otherwise terminated, we could lose the ability to continue the development and commercialization of the Menin Assets.

Our commercial success depends upon our ability to develop, manufacture, market and sell one or more of the Menin Assets. Subject to the achievement of certain milestone events, we may be required to pay Allergan up to \$99 million in one-time development and regulatory milestone payments over the term of the Allergan license agreement. In the event that we or any of our affiliates or sublicensees commercializes any of the Menin Assets, we will also be obligated to pay Allergan low single to low double-digit royalties on sales, subject to reduction in certain circumstances, as well as up to an aggregate of \$70 million in potential one-time sales-based milestone payments based on achievement of certain annual sales thresholds. Under certain circumstances, we may be required to share a percentage of non-royalty income from sublicensees, subject to certain deductions, with Allergan.

Either party may terminate the Allergan license agreement in its entirety or with respect to certain countries in the event of an uncured material breach by the other party. Either party may terminate the Allergan license agreement if voluntary or involuntary bankruptcy proceedings are instituted against the other party, if the other party makes an assignment for the benefit of creditors, or upon the occurrence of other specific events relating to the insolvency or dissolution of the other party. Allergan may terminate the Allergan license agreement if we seek to revoke or challenge the validity of any patent licensed to us by Allergan under the Allergan license agreement or if we procure or assist a third party to take any such action.

Unless terminated earlier in accordance with its terms, the Allergan license agreement will continue on a country-by-country and product-by-product basis until the later of: (i) the expiration of all of the licensed patent rights in such country; (ii) the expiration of all regulatory exclusivity applicable to the product in such country; and (iii) 10 years from the date of the first commercial sale of the product in such country. We cannot determine the date on which our royalty payment obligations to Allergan would expire because no commercial sales of the Menin Assets have occurred and the last-to-expire relevant patent covering the Menin Assets in a given country may change in the future.

If the Allergan license agreement is terminated, we would not be able to develop, manufacture, market or sell any of the Menin Assets and would need to negotiate a new or reinstated agreement, which may not be available to us on equally favorable terms, or at all.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, the documents incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering contain "forward-looking statements" within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are subject to the "safe harbor" created by those sections. We may, in some cases, use words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes to identify these forward-looking statements. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

- our estimates regarding our expenses, future revenues, anticipated capital requirements and our needs for additional financing;
- the timing of the progress and receipt of data from the Phase 1b/2 clinical trials of entinostat in lung cancer, melanoma, ovarian cancer and triple negative breast cancer;
- the timing of the progress and receipt of data from the Phase 3 clinical trial of entinostat in advanced HR+, HER2- breast cancer;
- the timing of the progress and receipt of data from the Phase 1 clinical trial of SNDX-6352 and the potential use of SNDX-6352 to treat various cancer indications;
- the scope, timing of the commencement, progress and receipt of data from any other clinical trials that we and our collaborators may conduct;
- our ability to replicate results in future clinical trials;
- our expectations regarding the potential safety, efficacy or clinical utility of our product candidates;
- our ability to obtain and maintain regulatory approval for our product candidates and the timing or likelihood of regulatory filings and approvals
 for such candidates;
- the potential use of entinostat to treat additional tumor types, including head and neck, bladder and renal cells;
- our ability to maintain our licenses with Bayer Pharma AG, Kyowa Hakko Kirin Co., Ltd., UCB Biopharma Sprl and Vitae Pharmaceuticals, Inc.;
- the potential milestone and royalty payments under certain of our license agreements;
- the implementation of our strategic plans for our business and development of our product candidates;
- the scope of protection we establish and maintain for intellectual property rights covering our product candidates and our technology;
- the market adoption of our product candidates by physicians and patients; and
- developments relating to our competitors and our industry.

These forward-looking statements reflect our management's beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus supplement and are subject to risks and uncertainties. We discuss many of these risks in greater detail under "Risk Factors." Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should read this prospectus, the applicable prospectus supplement, together with the documents that we have filed with the SEC that are incorporated by reference and any free writing prospectus we have authorized for use in connection with a specific offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements. Except as required by law, we undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

USE OF PROCEEDS

We expect to receive approximately \$24.8 million in net proceeds from the sale of 2,021,018 shares of common stock offered by us in this offering, after deducting estimated offering expenses payable by us.

We intend to use the net proceeds from the offering to: (i) fund our pipeline of development programs, in particular: entinostat as an immune-modulatory agent, which we are evaluating as a combination therapeutic in multiple Phase 1b/2 clinical trials across a range of tumor types; entinostat for HR+, HER2-breast cancer, which is enrolling a Phase 3 clinical trial with sponsorship and funding support from the NCI and which we continue to provide certain financial and operational support; SNDX-6352, which is currently enrolling a Phase 1 multiple ascending dose trial in cancer patients; and clinical trials of the Menin Assets, which we expect to initiate in 2019; (ii) opportunistically acquire or invest in businesses, products or technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus supplement; and (iii) for working capital and general corporate purposes. We will retain broad discretion in determining how we will allocate the net proceeds from this offering. Pending the use of net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States.

DILUTION

Our net tangible book value as of June 30, 2017 was approximately \$109.3 million, or \$4.92 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of June 30, 2017. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of 2,021,018 shares of our common stock in this offering at public offering price of \$12.37 per share, and after deducting estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2017 would have been approximately \$134.2 million, or \$5.53 per share. This represents an immediate increase in net tangible book value of \$0.61 per share to existing stockholders and immediate dilution of \$6.84 per share to investors purchasing our common stock in this offering at the public offering price. The following table illustrates this dilution on a per share basis:

Public offering price per share		\$12.37
Net tangible book value per share of as June 30, 2017	\$4.92	
Increase in net tangible book value per share attributable to this offering	\$0.61	
As adjusted net tangible book value per share as of June 30, 2017, after giving effect to this offering		\$ 5.53
Dilution per share to investors purchasing our common stock in this offering		\$ 6.84

The above discussion is based on 22,219,843 shares of our common stock outstanding as of June 30, 2017, and excludes:

- 2,132,323 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2017 under our 2007 Plan at a weighted average exercise price of \$8.28 per share;
- 1,149,321 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2017 under our 2015 Plan at a weighted average exercise price of \$10.88 per share;
- 357,840 shares of our common stock issuable upon the exercise of the Bayer Warrant, which warrant is expected to remain outstanding upon completion of this offering.
- 1,427,340 shares of common stock reserved for future issuance under our 2015 Plan, plus any additional shares of our common stock that may become available under our 2015 Plan;
- 432,237 shares of our common stock reserved for issuance under our ESPP, as well as any future increases in the number of shares of our common stock reserved for issuance under the ESPP; and
- 92,511 shares of our common stock sold pursuant to our ATM Program.

To the extent that outstanding options outstanding as of June 30, 2017 have been or may be exercised or other shares issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

PLAN OF DISTRIBUTION

We are selling 2,021,018 shares of common stock directly to BVF, and entities affiliated with BVF, at a price of \$12.37 per share. We have entered into a purchase agreement, dated October 17, 2017, with BVF and certain entities affiliated with BVF relating to the sale of the shares of common stock.

The shares of the common stock are being offered directly to the investors without a placement agent, underwriter, broker or dealer.

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. Our common stock is listed on the NASDAQ Global Select Market under the symbol "SNDX."

BVF has agreed to be locked up until 11:59 p.m. Eastern time on November 11, 2017. Pursuant to the lock-up provision of the purchase agreement, BVF agreed that neither BVF nor any affiliates will offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of in any manner, either directly or indirectly, any shares of common stock purchased in this Offering or any of our securities currently owned by the BVF, other than transfers of securities between and among the BVF and any one or more of its affiliates.

We have agreed to indemnify BVF and certain of its controlling persons against any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation that any such indemnified party may suffer or incur as a result of or relating to any breach of any of the representations, warranties, covenants or agreements made by us in the purchase agreement; or any action instituted against BVF or its affiliates, by any of our stockholders who is not an affiliate of BVF or any governmental or regulatory agency, with respect to this offering (unless such action is based upon a material breach of BVF's representations, warranties or covenants of subscription agreement or any agreements or understandings BVF may have with any such stockholder or any material violations by BVF of state or federal securities laws or any conduct by BVF which constitutes fraud, gross negligence, willful misconduct or malfeasance) with respect to which, in each case, BVF has delivered a notice to us within one year from the date of this prospectus supplement. We have also agreed to pay certain legal fees and expenses incurred by BVF in this offering.

LEGAL MATTERS

Cooley LLP, San Francisco, California, will pass upon the validity of the issuance of the shares being sold in this offering.

EXPERTS

The consolidated financial statements, incorporated in this prospectus supplement by reference from the Company's Annual Report on Form 10-K, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and do not contain all of the information set forth or incorporated by reference in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus supplement, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can also request copies of these documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Syndax. The address of the SEC website is www.sec.gov.

We maintain a website at www.syndax.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-37708. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 14, 2017;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2016 from our Definitive Proxy Statement on Schedule 14A for our 2017 Annual Meeting of Stockholders, filed with the SEC on April 7, 2017;
- our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2017 and June 30, 2017, filed with the SEC on May 9, 2017 and August 10, 2017, respectively;
- our Current Reports on Form 8-K filed with the SEC on January 5, 2017, February 9, 2017, April 4, 2017, May 19, 2017, May 23, 2017, May 25, 2017, October 5, 2017 and October 17, 2017, to the extent the information in such reports is filed and not furnished; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on March 2, 2016, including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to Syndax Pharmaceuticals, Inc., Attn: Luke J. Albrecht, General Counsel, 35 Gatehouse Drive, Building D, Floor 3, Waltham, Massachusetts 02451; telephone: (781) 419-1400.

PROSPECTUS



\$200,000,000

Common Stock Preferred Stock Debt Securities Warrants

From time to time, we may offer up to \$200,000,000 of any combination of the securities described in this prospectus in one or more offerings. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable antidilution provisions.

This prospectus provides a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.

Our common stock is traded on the NASDAQ Global Select Market under the symbol "SNDX." On April 4, 2017, the last reported sale price of our common stock was \$13.29 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on the NASDAQ Global Select Market or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

We will sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section titled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus as described on page 7 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 20, 2017.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total aggregate offering price of \$200,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading "Incorporation of Certain Information by Reference," before investing in any of the securities offered.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Neither we, nor any agent, underwriter or dealer has authorized any person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus prepared by or on behalf of us or to which we have referred you. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

This prospectus and the information incorporated herein by reference contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find More Information."

SUMMARY

The following summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our consolidated financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless the context indicates otherwise, references in this prospectus to "Syndax," "the Company," "we," "us," "our" and similar references refer to Syndax Pharmaceuticals, Inc. and its wholly owned subsidiaries.

Company Overview

We are a clinical stage biopharmaceutical company developing an innovative pipeline of combination therapies in multiple cancer indications. Our lead product candidate, entinostat, is currently being evaluated in a Phase 3 clinical trial for advanced hormone receptor positive, or HR+, human epidermal growth factor receptor 2 negative, or HER2-, breast cancer. Entinostat was granted Breakthrough Therapy designation by the U.S. Food and Drug Administration, or the FDA, following positive results from our Phase 2b clinical trial, ENCORE 301. We are developing entinostat, which has direct effects on both cancer cells and immune regulatory cells, and SNDX-6352, a monoclonal antibody that targets the colony stimulating factor-1 receptor, or CSF-1R, to enhance the body's immune response on tumors that have shown sensitivity to immunotherapy. We acquired the exclusive rights to SNDX-6352 in July 2016 and are evaluating entinostat as a combination therapeutic in Phase 1b/2 clinical trials with Merck & Co., Inc., or Merck, for non-small cell lung cancer and melanoma; with Genentech, Inc., or Genentech, for triple negative breast cancer, or TNBC; and with Merck KGaA, Darmstadt, Germany, or Merck KGaA, and Pfizer Inc., or Pfizer, for ovarian cancer. We are evaluating SNDX-6352 in a single ascending dose Phase 1 clinical trial. We plan to continue to leverage the technical and business expertise of our management team and scientific collaborators to license, acquire and develop additional cancer therapies to expand our pipeline.

Entinostat

Entinostat is our oral, small molecule product candidate that has direct effects on both cancer cells and immune regulatory cells, potentially enhancing the body's immune response to tumors. The favorable safety profile of entinostat has been demonstrated in clinical trials in more than 1,000 cancer patients. We believe that, based on its mechanism of action, entinostat may have broad applications in additional tumor types, including head and neck, bladder and renal cell, which are immuno-responsive, or sensitive to immunotherapy.

Immuno-oncology is an emerging field of cancer medicine that has focused on the development of therapeutic approaches designed to activate the immune system to find and destroy cancer cells. Many tumors have the ability to evade the immune system through direct cellular interactions and recruitment of immuno-suppressive cells to the area surrounding the tumor. One such evasion mechanism is through the expression of proteins known as checkpoint proteins, such as programmed cell death protein ligand 1, or PD-L1, on the cancer cell surface. These checkpoint proteins bind to a corresponding receptor known as programmed cell death protein 1, or PD-1, which is expressed on particular immune cells known as cytotoxic T cells. Through this binding process, cytotoxic T cells are blocked from killing cancer cells. Antibodies known as immune checkpoint inhibitors block the interaction between PD-1 and PD-L1 to restore the ability of cytotoxic T cells to kill cancer cells and have shown significant clinical benefit in treating certain cancers. We believe that entinostat acts on a different tumor-evasion mechanism than is targeted by most other immunotherapies in development. Instead of focusing on the interaction between the T cell and the tumor, entinostat has been observed to decrease

the population of immuno-suppressive cells known as myeloid-derived suppressor cells, or MDSCs, and regulatory T cells, or Tregs, which localize in the area surrounding the tumor and block T cells from killing cancer cells.

We believe entinostat, a Class 1-specific histone deacetylase, or HDAC, inhibitor, is the therapy most advanced in development that can directly reduce both the number and activity of MDSCs and Tregs while sparing the cytotoxic T cells. Through blocking the immuno-suppressive effects of MDSCs and Tregs, we believe entinostat has the potential to be used synergistically with therapies such as immune checkpoint inhibitors, resulting in the increased ability of the T cells to attack the tumor. Through this important effect on MDSCs and Tregs, entinostat has the potential to be used synergistically with therapies working to stimulate the immune system. The long half-life of entinostat allows for continuous exposure to therapy potentially resulting in positive immuno-modulatory effects without corresponding cytotoxic effects. Another benefit of entinostat's long half-life is the potential to minimize the frequency of dosing and reduce the severity and frequency of adverse events.

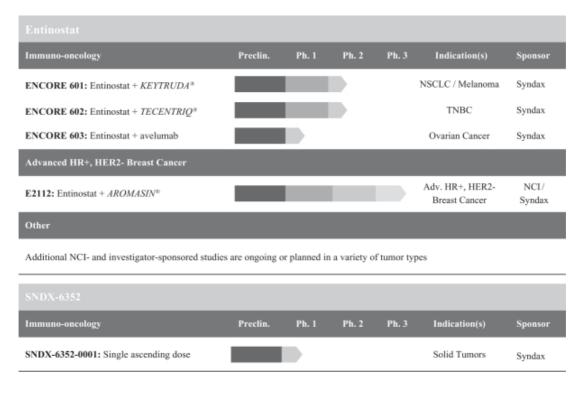
SNDX-6352

SNDX-6352 is a humanized monoclonal antibody that binds with high affinity to CSF-1R. CSF-1R is expressed on the surface of specific immuno-suppressive cells (e.g., tumor-associated macrophages or TAMs) known to play a role in the growth, survival, and metastases of cancer. Inhibition of CSF-1R is thought to disrupt the activity of TAMs, resulting in a decrease in the immunosuppressive environment immediately surrounding the tumor, or tumor microenvironment. This mode of action is thought to make CSF-1R inhibitors well suited for use in combination with checkpoint inhibitors, particularly in cancers where there may be limited activity of immune checkpoint inhibitors as monotherapy.

SNDX-6352 is an immunoglobulin G subclass 4, or IgG4, isotype that binds to the ligand binding domain of CSF-1R, blocking the binding and consequent activation by both natural ligands interleukin-34, or IL-34, and colony stimulating factor-1, or CSF-1, and disrupting TAM activity. We believe that the Ig subtype may provide differentiation in terms of safety and/or efficacy of the antibodies as single agent or in combinations. It is through this mechanism that we believe SNDX-6352 can decrease the ability of the tumor to grow and spread to other parts of the body. We believe that SNDX-6352 has the potential to be used to treat a variety of cancers in combination with entinostat and with other oncology agents, including immune checkpoint inhibitors, radiation, and chemotherapy.

Clinical Development Programs

The following table sets forth information pertaining to our principal clinical trials for (1) entinostat with our initial focus on advancing ENCORE 601, ENCORE 602 and ENCORE 603 in immuno-oncology, (2) entinostat in E2112 in HR+, HER2- breast cancer and (3) SNDX-6352 in immuno-oncology.



Corporate Information

We were incorporated in Delaware in 2005. In 2011, we established a wholly owned subsidiary in the United Kingdom and in 2014 we established a wholly owned U.S. subsidiary. Our principal executive offices are located at 35 Gatehouse Drive, Building D, Floor 3, Waltham, Massachusetts 02451 and our telephone number is (781) 419-1400. Our common stock is listed on the NASDAQ Global Select Market under the symbol "SNDX." Our corporate website address is www.syndax.com. Information contained on or accessible through our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our securities.

"Syndax" is a registered trademark and the "Syndax" and "Syndax Pharmaceuticals" logos are unregistered trademarks of the company. This prospectus also contains registered marks, trademarks and trade names of other companies. All other trademarks, registered marks and trade names appearing in this prospectus are the property of their respective holders.

Implications of Being an Emerging Growth Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. These provisions include:

• being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;

- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- · reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- not being required to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until December 31, 2021 or such earlier time that we no longer qualify as an emerging growth company. We would cease to be an emerging growth company if we have more than \$1.0 billion in annual revenues, have more than \$700 million in market value of our capital stock held by non-affiliates, or issue more than \$1.0 billion of non-convertible debt over a three-year period. We may choose to take advantage of some but not all of these reduced burdens. For example, we have taken advantage of the reduced reporting requirements with respect to disclosure regarding our executive compensation arrangements, have presented only two years of audited financial statements and only two years of related "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure in our public filings, and have taken advantage of the exemption from auditor attestation on the effectiveness of our internal control over financial reporting. Accordingly, the information that we provide stockholders may be different than you might obtain from other public companies in which you hold equity interests.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of delayed adoption of new or revised accounting standards and, therefore, we will be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not emerging growth companies.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of debt securities and warrants to purchase any of such securities, up to a total aggregate offering price of \$200,000,000 from time to time in one or more offerings under this prospectus, together with any applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of the relevant offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exchange or sinking fund terms, if any;

- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;
- ranking;
- restrictive covenants, if any;
- voting or other rights, if any; and
- important U.S. federal income tax considerations.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

We may sell the securities directly to investors or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the estimated net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders and does not have cumulative voting rights. Subject to preferences that may apply to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock. Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Under our certificate of incorporation, our board of directors has the authority, without further action by our stockholders (unless such stockholder action is required by applicable law or the rules of any stock exchange or market on which our securities are then traded), to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. Any convertible preferred stock we may issue will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the designations, voting powers, preferences and rights of such series of preferred stock, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock that we are offering before the issuance of the related series of preferred stock. We urge you to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Debt Securities. We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible debt securities will be convertible into or exchangeable for our common stock or preferred stock. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

The debt securities will be issued under one or more documents called indentures, which are contracts between us and a national banking association or other eligible party, as trustee. In this prospectus, we have summarized certain general features of the debt securities. We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of debt securities being offered, as well as the complete indentures that contain the terms of the debt securities. A form of indenture has been filed as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

Warrants. We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. In this prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants being offered have been filed as exhibits to the registration statement of which this prospectus is a part, and supplemental warrant agreements and forms of warrant certificates will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

We will evidence each series of warrants by warrant certificates that we will issue. Warrants may be issued under an applicable warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in our Annual Report on Form 10-K for the year ended December 31, 2016, as updated by our quarterly and other reports and documents that are incorporated by reference into this prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors could adversely affect our business, results of operations, financial condition and cash flows, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain forward-looking statements. These are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the sections titled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K, as well as any amendments thereto, filed with the SEC.

Any statements in this prospectus, or incorporated herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. Within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, these forward-looking statements include statements regarding:

- our estimates regarding our expenses, future revenues, anticipated capital requirements and our needs for additional financing;
- the timing of the progress and receipt of data from the Phase 1b/2 clinical trials of entinostat in lung cancer, melanoma, ovarian cancer and triple negative breast cancer;
- the timing of the progress and receipt of data from the Phase 3 clinical trial of entinostat in advanced HR+, HER2- breast cancer;
- the timing of the progress and receipt of data from the Phase 1 clinical trial of SNDX-6352 and the potential use of SNDX-6352 to treat various cancer indications;
- the scope, timing of the commencement, progress and receipt of data from any other clinical trials that we and our collaborators may conduct;
- our ability to replicate results in future clinical trials;
- our expectations regarding the potential safety, efficacy or clinical utility of our product candidates;
- our ability to obtain and maintain regulatory approval for our product candidates and the timing or likelihood of regulatory filings and approvals
 for such candidates;
- the potential use of entinostat to treat additional tumor types, including head and neck, bladder and renal cells;
- our ability to maintain our licenses with Bayer Pharma AG, Kyowa Hakko Kirin Co., Ltd. and UCB Biopharma Sprl;
- the potential milestone and royalty payments under certain of our license agreements;
- the implementation of our strategic plans for our business and development of our product candidates;
- the scope of protection we establish and maintain for intellectual property rights covering our product candidates and our technology;
- the market adoption of our product candidates by physicians and patients; and
- developments relating to our competitors and our industry.

In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the negative or plural of those terms, and similar expressions intended to identify statements about the future, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

You should refer to the "Risk Factors" section contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus, even if new information becomes available in the future.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for each of the periods presented. We do not have any preferred stock outstanding as of the date of this prospectus and did not have any preferred stock with required dividend payments during any of the periods presented below. Therefore, there are no preferred dividends included in our calculation of these ratios. This table is qualified by the more detailed information appearing in the computation table set forth in Exhibit 12.1 to the registration statement of which this prospectus is a part.

(in thousands, except ratios)		Year Ended December 31,		
	2016	2015	2014	2013
Ratio of earnings to fixed charges(1)	*	*	*	*
Deficiency of earnings available to cover fixed charges	\$(44,472)	\$(24,119)	\$(19,828)	\$(14,171)

- * We did not record earnings for any of the fiscal years ending December 31, 2016, 2015, 2014 and 2013. Accordingly, our earnings were insufficient to cover fixed charges for such periods and we are unable to disclose a ratio of earnings to fixed charges for such periods.
- (1) "Fixed charges" are calculated as the sum of (a) interest costs (both expensed and capitalized), (b) amortization of debt expense and discount or premium relating to any indebtedness and (c) that portion of rental expense that is representative of the interest factor.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. Except as described in any applicable prospectus supplement or in any free writing prospectuses that we may authorize to be provided to you in connection with a specific offering, we currently intend to use the net proceeds from the sale of the securities offered hereby, if any, to fund research and development, acquire or invest in businesses, products or technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus, and for working capital and general corporate purposes. We will set forth in the applicable prospectus supplement or free writing prospectus our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement or free writing prospectus. Pending the use of net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries. You should also refer to the amended and restated certificate of incorporation and the amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is part.

General

Under our amended and restated certificate of incorporation we are authorized to issue up to 100,000,000 shares of common stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.001 per share, all of which shares of preferred stock are undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time. As of December 31, 2016, we had outstanding 18,215,181 shares of common stock (which number excludes 8,542 shares of unvested restricted stock subject to repurchase by us).

Common Stock

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders. The affirmative vote of holders of at least 66% of the voting power of all of the then-outstanding shares of capital stock, voting as a single class, will be required to amend certain provisions of our amended and restated certificate of incorporation, including provisions relating to amending our amended and restated bylaws, the classified board, the size of our board, removal of directors, director liability, vacancies on our board, special meetings, stockholder notices, actions by written consent and exclusive jurisdiction.

Dividends

Subject to preferences that may apply to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Fully Paid and Nonassessable

All outstanding shares of our common stock are fully paid and nonassessable.

Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors has the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more

series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action, or make the removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of the common stock.

Our board of directors will fix the designations, voting powers, preferences and rights of the each series, as well as the qualifications, limitations or restrictions thereof, of the preferred stock of each series that we offer under this prospectus and applicable prospectus supplements in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price per share;
- the dividend rate per share, dividend period and payment dates and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- our right, if any, to defer payment of dividends and the maximum length of any such deferral period;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock or other securities of ours, including depositary shares and warrants, and, if applicable, the conversion period, the conversion price, or how it will be calculated, and under what circumstances it may be adjusted;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange period, the exchange price, or how it will be calculated, and under what circumstances it may be adjusted;
- · voting rights, if any, of the preferred stock;
- preemption rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material or special U.S. federal income tax considerations applicable to the preferred stock;

- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;
- any limitations on issuances of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock being issued as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, rights, preferences, privileges, qualifications or restrictions of the preferred stock.

The Delaware General Corporation Law, or DGCL, which is the law of the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our certificate of incorporation if the amendment would change the par value, the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be, or, unless the certificate of incorporation provided otherwise, the number of authorized shares of the class. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Bayer Warrant

On March 26, 2007, we issued to Bayer Pharma AG (formerly known as Bayer Schering Pharma AG), or Bayer, a warrant to purchase the number of shares of our common stock equal to 1.75% of the shares of common stock outstanding on a fully diluted basis as of the earlier of the date of exercise or our initial public offering, at an exercise price of \$1.54 per share, or the Bayer Warrant. Upon the closing of our initial public offering in March 2016, the total number of shares of the Company's common stock issuable upon the Bayer Warrant was set at 357,840. The Bayer Warrant contains a cashless exercise feature and Bayer may, at its option, exercise the Bayer Warrant in whole or in part at any time prior to expiration upon the earlier of (i) the 10-year anniversary of the closing of our initial public offering or (ii) the date of the consummation of a disposition transaction.

Registration Rights

Certain holders of shares of our common stock, including Bayer upon exercise of the Bayer Warrant have the right to demand that we file a registration statement or request that we cover their shares by a registration statement that we otherwise file, as described below.

Demand Registration Rights

The holders of at least 35% of the shares having demand registration rights may request that we register all or a portion of their shares of common stock for sale under the Securities Act. We will effect the registration as requested, unless, in the good faith judgment of our board of directors, such registration would be seriously detrimental to the company and should be delayed. In addition, holders of at least 20% of the shares having demand registration rights may request that we register all or a portion of their common stock for sale under the Securities Act on Form S-3, or any successor form, so long as the aggregate price, net of underwriting discounts and commissions, to the public in connection with any such offering is more than \$1.0 million.

Incidental Registration Rights

If we propose to register any shares of our common stock under the Securities Act either for our own account or for the account of other stockholders, the holders of all shares having piggyback registration rights are entitled to notice of the registration and to include all or a portion of their shares of common stock in the registration.

Other Provisions

In the event that any registration in which the holders of registrable shares participate pursuant to the investors' rights agreement is an underwritten public offering, the number of registrable shares to be included may, in specified circumstances, be limited due to market conditions.

We will pay all registration expenses, other than underwriting discounts, selling commissions and stock transfer taxes, and the reasonable fees and expenses of a single special counsel for the selling stockholders, related to any demand, piggyback and Form S-3 registration. The investors' rights agreement contains customary cross-indemnification provisions, pursuant to which we must indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us, and they must indemnify us for material misstatements or omissions in the registration statement attributable to them. The demand, piggyback and Form S-3 registration rights described above will expire, with respect to any particular stockholder, upon the earlier of (i) the date when such stockholder can sell all of its registrable shares in a single transaction pursuant to Rule 144 of the Securities Act, (ii) three years after our initial public offering or (iii) a liquidating transaction as defined in our amended and restated certificate of incorporation, as currently in effect.

Anti-Takeover Provisions

Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation and amended and restated bylaws include a number of provisions that may deter or impede hostile takeovers or changes of control or management. These provisions include:

- Issuance of Undesignated Preferred Stock. Our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock enables our board of directors to make it more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise.
- Classified Board. Our amended and restated certificate of incorporation provides for a classified board of directors consisting of three classes of
 directors, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other
 classes continuing for the remainder of their respective three-year terms. This provision may have the effect of delaying a change in control of
 our board.
- **Board of Directors Vacancies.** Our amended and restated certificate of incorporation and amended and restated bylaws authorize only our board of directors to fill vacant directorships. In addition, the number of directors constituting our board of directors may be set only by resolution adopted by a majority vote of our entire board of directors. These provisions prevent a stockholder from increasing the size of our board of directors and gaining control of our board of directors by filling the resulting vacancies with its own nominee.
- Stockholder Action; Special Meetings of Stockholders. Our amended and restated certificate of incorporation provides that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. Stockholders will not be permitted to cumulate their votes for the election of directors. Our amended and restated certificate of incorporation further provides that only the chairman of our board of directors or a majority of our board of directors may call special meetings of our stockholders.
- Advance Notice Requirements for Stockholder Proposals and Director Nominations. Our amended and restated bylaws provide advance notice
 procedures for stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as
 directors at our

annual meeting of stockholders. Our amended and restated bylaws also specify certain requirements as to the form and content of a stockholder's notice. These provisions may make it more difficult for our stockholders to bring matters before our annual meeting of stockholders or to nominate directors at annual meetings of stockholders.

We designed these provisions to enhance the likelihood of continued stability in the composition of our board of directors and its policies, to discourage certain types of transactions that may involve an actual or threatened acquisition of us, and to reduce our vulnerability to an unsolicited acquisition proposal. We also designed these provisions to discourage certain tactics that may be used in proxy fights. However, these provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they may also reduce fluctuations in the market price of our shares that could result from actual or rumored takeover attempts.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an "interested stockholder" as an entity or person who, together with the entity or person's affiliates and associates, beneficially owns, or is an affiliate or associate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

A Delaware corporation may "opt out" of these provisions with an express provision in its certificate of incorporation. We have not opted out of these provisions, which may as a result, discourage or prevent mergers or other takeover or change of control attempts of us.

Choice of Forum

Our amended and restated certificate of incorporation will provide that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware), the Court of Chancery of the State of Delaware will be the exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action or proceeding commenced by any of our stockholders (including any class action) asserting a breach of fiduciary duty owed, or other wrongdoing, by any director, officer, employee or agent to us or our stockholders, (3) any action or proceeding commenced by any of our stockholders (including any class action) asserting a claim against us arising pursuant to the DGCL or our amended and restated certificate of incorporation or our amended and restated bylaws, (4) any action or proceeding commenced by any of our stockholders (including any class action) to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or our amended and restated bylaws, or (5) any action or proceeding commenced by any of our stockholders (including any class action) asserting a claim against us that is governed by the internal affairs doctrine.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's address is 480 Washington Boulevard, Jersey City, New Jersey 07310. The transfer agent for any series of preferred stock that we may offer under this prospectus will be named and described in the prospectus supplement for that series.

Listing on the NASDAQ Global Select Market

Our common stock is listed on the NASDAQ Global Select Market under the symbol "SNDX."

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as "discount securities," which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with "original issue discount," or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;

- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;
- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;

- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any, and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of our assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than a subsidiary of ours) must assume all of our obligations under the indenture or the debt securities, as appropriate.

Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, of such series of debt securities due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request;
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

Modification of Indenture; Waiver

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may change an indenture without the consent of any holders with respect to specific matters:

to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;

- to comply with the provisions described above under "Description of Debt Securities—Consolidation, Merger or Sale";
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred upon us in the indenture;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under "Description of Debt Securities—General" to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee; or
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

The indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;

- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company, or DTC, or another depositary named by us and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange of any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to

exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock, preferred stock or debt securities and may be issued in one or more series. Warrants may be issued independently or together with common stock, preferred stock or debt securities offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants that we may offer in more detail in the applicable prospectus supplement and any applicable free writing prospectus. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We have filed forms of the warrant agreements and warrant certificates as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, if any, including a form of warrant certificate, that describes the terms of the particular series of warrants we are offering. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms relating to a series of warrants being offered, including:

- the title of such securities;
- the offering price or prices and aggregate number of warrants offered;
- the currency or currencies for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- if applicable, the minimum or maximum amount of such warrants which may be exercised at any one time;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at which, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which, and the currency in which, these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- the terms of any rights to force the exercise of the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;

- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- a discussion of any material or special U.S. federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent in connection with the exercise of the warrant.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements, and any claim, controversy or dispute arising under or related to the warrants or warrant agreements, will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee or depositary maintain for this purpose as the "holders" of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as "indirect holders" of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Global securities will be registered in the name of the depositary or its participants. Consequently, for global securities, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a global security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not legal holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities that are not issued in global form. In these cases, investors may choose to hold their securities in their own names or in "street name." Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depositary will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any such trustee or depositary will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee or third party employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with its participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of an indenture, or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the legal holders contact the indirect holders is up to the legal holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form because the securities are represented by one or more global securities or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we issue to, deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under "—Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and legal holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a legal holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued as a global security, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another bookentry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers.

We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only as global securities, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in the global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in the global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in the global security, nor will we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in the global security within its bookentry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in the global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, a global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own names, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and neither we nor any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also sell equity securities covered by this registration statement in an "at the market offering" as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of the NASDAQ Global Select Market or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- other than on the NASDAQ Global Select Market or such other securities exchanges or quotation or trading services.

Such at-the-market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or overthe-counter market or otherwise.

Any underwriters who are qualified market makers on the NASDAQ Global Select Market may engage in passive market making transactions in the securities on the NASDAQ Global Select Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering and the validity of the securities offered by this prospectus, and any supplement thereto, will be passed upon by Cooley LLP. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements, incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can also request copies of these documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Syndax. The address of the SEC website is www.sec.gov.

We maintain a website at www.syndax.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-37708. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 14, 2017;
- our Current Reports on Form 8-K filed with the SEC on January 5, 2017, February 9, 2017, April 4, 2017 and May 23, 2017, to the extent the information in such reports is filed and not furnished; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on March 2, 2016, including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to Syndax Pharmaceuticals, Inc., Attn: Luke Albrecht, General Counsel, 35 Gatehouse Drive, Building D, Floor 3, Waltham, Massachusetts 02451; telephone: (781) 419-1400.

\$25,000,000



Common Stock

PROSPECTUS SUPPLEMENT

October 17, 2017