**Filed pursuant to Rule 424(b)(5)**
**Registration No. 333-233564**

**PROSPECTUS**


# $50,000,000

## Common Stock

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We have entered into a certain sales agreement, or the sales agreement, with Cowen and Company LLC, or Cowen, relating to shares of our common stock offered by this prospectus. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to $50,000,000 from time to time through Cowen acting as our agent.

Our common stock is listed on The Nasdaq Global Select Market, or Nasdaq, under the symbol "SNDX." On August 27, 2019, the last reported sale price of our common stock was $8.77 per share.

Sales of our common stock, if any, under this prospectus may be made in sales deemed to be an "at-the-market" equity offering as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. Cowen is not required to sell any specific number or dollar amount of securities, but will act as a sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between Cowen and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to Cowen for sales of common stock sold pursuant to the sales agreement will be an amount up to 3.0% of the gross proceeds of any shares of common stock sold under the sales agreement. In connection with the sale of the common stock on our behalf, Cowen will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Cowen will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Cowen with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

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**Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" on page S-7 of this prospectus and under similar headings in the other documents that are incorporated by reference into this prospectus.**

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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.

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# Cowen

**The date of this prospectus is September 10, 2019.**

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### Prospectus

## ABOUT THIS PROSPECTUS

This prospectus relates to part of a registration statement on Form S-3 that we have 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 our base prospectus included in the shelf registration statement in one or more offerings up to a total aggregate offering price of $300,000,000. The $50,000,000 of common stock that may be offered, issued and sold under this prospectus is included in the $300,000,000 of securities that may be offered, issued and sold by us pursuant to our shelf registration statement. In connection with such offers and when accompanied by the base prospectus included in the registration statement of which this prospectus forms a part, this prospectus will be deemed a prospectus supplement to such base prospectus.

This prospectus relates to the offering of our common stock. Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus, together with the information incorporated by reference as described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus. These documents contain important information that you should consider when making your investment decision.

This prospectus describes the terms of this offering of common stock and also adds to and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the SEC before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date (for example, a document incorporated by reference into this prospectus) the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in or incorporated by reference in this prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and the sales agent has not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the sales agent is 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, the documents incorporated by reference in this 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. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus, the documents incorporated by reference in this 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.

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 SUMMARY

*This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus. 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, we encourage you to read and consider carefully the more detailed information in this prospectus, including the information incorporated by reference in this prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information under the heading "Risk Factors" in this prospectus on page S-7 and in the documents incorporated by reference into this prospectus.*

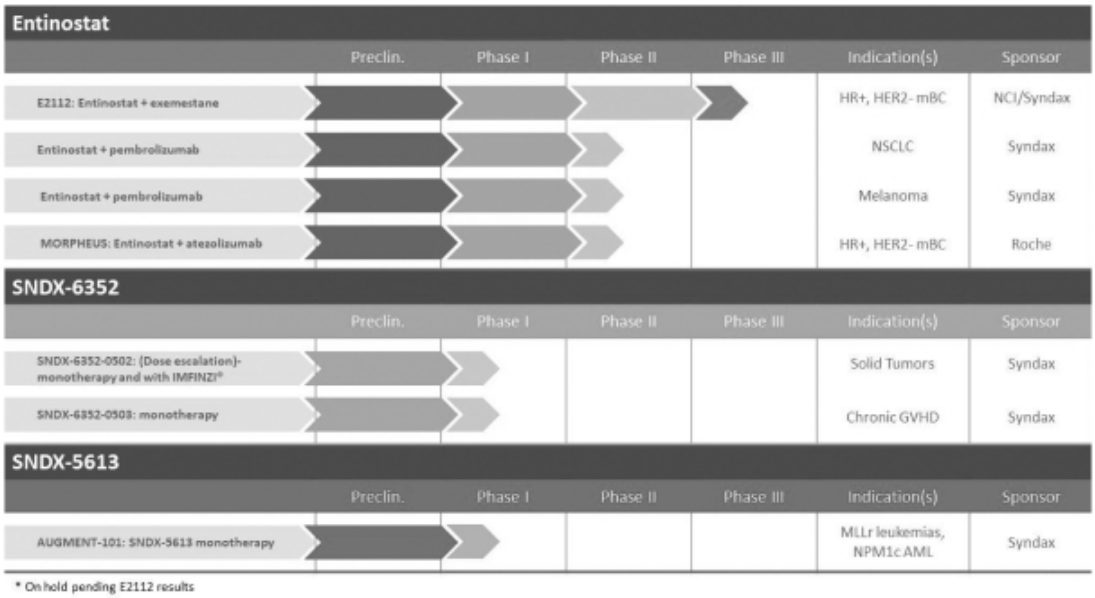
### Company Overview

We are a clinical-stage biopharmaceutical company developing an innovative pipeline of cancer therapies. Our lead product candidate, entinostat is a once-weekly, oral, small molecule, Class I HDAC inhibitor currently being evaluated in a Phase 3 clinical trial in combination with exemestane for advanced hormone receptor positive, or HR+, human epidermal growth factor receptor 2 negative, or HER2-, breast cancer, an indication for which it has been granted breakthrough therapy designation by the U.S. Food and Drug Administration, or FDA. In addition, entinostat has been shown to block the function of immune suppressive cells in the tumor microenvironment, and is being evaluated in combination with Keytruda® (pembrolizumab) from Merck & Co., Inc. for non-small cell lung cancer and melanoma.

We are also developing SNDX-5613, an orally-available, small molecule inhibitor of the interaction of menin with the mixed lineage leukemia, or MLL, protein as a targeted therapy to potentially treat two genetically defined acute leukemias: (i) mixed lineage leukemia-rearranged, or MLLr, a genetically-defined subset of acute leukemias with chromosomal rearrangements in the MLL gene; and (ii) acute myeloid leukemia, or AML, with a mutated nucleophosmin 1, or NPM1, characterized by a somatic mutation in the NPM1 gene, or NPM1c. In July 2019, we announced that the FDA cleared our investigational new drug application to begin a Phase 1/2 trial for SNDX-5613 in patients with relapsed/refractory acute leukemias. Our clinical-stage product candidate, SNDX-6352, is a monoclonal antibody that targets the colony stimulating factor-1 receptor, or CSF-1R, a cell surface protein thought to control the survival and function of monocytes and macrophages. Researchers believe that in many cancers, inhibition of CSF-1R will reduce the number of immunosuppressive tumor-associated macrophages, or TAMs, and enable an immune response against tumors. We are conducting a Phase 1 trial of SNDX-6352 in patients with chronic graft versus host disease, or cGVHD, as well as a Phase 1/1b trial of SNDX-6352, alone or in combination with Imfinzi® (durvalumab), from AstraZeneca plc.

We plan to continue to leverage the technical and business expertise of our management team and scientific collaborators to opportunistically license, acquire and develop additional cancer therapies to expand our pipeline.

**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 1,200 cancer patients. The long half-life of entinostat allows for continuous exposure to therapy potentially resulting in positive efficacy benefits 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. Based on entinostat's ability to reverse hormone resistance, alter cancer stem cells, and modulate immunosensitivity, we believe entinostat may have broad applications in tumor types which have become resistant to hormone and/or immunotherapy.

Entinostat has also been shown to enhance the immune system's ability to identify and target tumor cells. It is now widely accepted that many tumors have the ability to evade the immune system either through direct cellular interactions and recruitment of immuno-suppressive cells to the area surrounding the tumor, or through parallel evasion-mechanisms focused on the interaction between the T cell with other immune cells found within the surrounding tumor microenvironment. 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, 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.

**SNDX-5613**

SNDX-5613 is a potent, orally active inhibitor of the high affinity interaction site on menin with the protein MLL1. This specific interaction is a key driver for two genetically defined acute leukemias: (i) MLLr and

(ii) NPM1c AML. Both diseases have a poor prognosis with an unmet need. In July 2019, we announced that the FDA cleared our IND application to begin a Phase 1/2 trial for SNDX-5613. We will refer to the clinical development of SNDX-5613 as the AUGMENT Program. The Phase 1/2 open-label trial will assess orally administered SNDX-5613 in adults with relapsed/refractory acute leukemias. The Phase 1 dose escalation portion of the study will evaluate the safety, tolerability and pharmacokinetics of SNDX-5613, and will seek to establish a recommended Phase 2 dose. The Phase 2 portion will evaluate efficacy, as defined by Complete Response rate (per International Working Group response criteria), across three expansion cohorts: MLL-rearranged, or MLL-r, acute lymphoblastic leukemia, or ALL; MLL-r AML; and NPM1 mutant AML. We expect to report initial clinical data from the trial in 2020.

**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., 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. 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.

We are developing SNDX-6352 to bind to CSF-1R and block the ability of CSF-1 and IL-34 to bind to and activate CSF-1R signaling. Our near-term focus is to rapidly establish proof of concept that SNDX-6352 can provide meaningful clinical benefit to patients in one or more tumor types when combined with standard of care therapies for a given indication. We intend to conduct clinical trials in patients with tumor types having clear unmet needs (e.g., NSCLC, TNBC, prostate, melanoma, pancreatic, ovarian, bladder) and where we believe that the inhibition of TAMs via CSF-1R inhibition will produce meaningful benefits for patients, such as chronic graft versus host disease.

**Risks Associated with Our Business**

Our business is subject to numerous risks and uncertainties, including those highlighted in the section titled “Risk Factors” immediately following this prospectus summary and those described under similar headings in the documents incorporated by reference into this prospectus. These risks include:

- We have incurred net losses since our inception and anticipate that we will continue to incur net losses for the foreseeable future.
- We currently have no source of product revenue and may never achieve or maintain profitability.
- We will require additional capital to finance our planned operations, which may not be available to us on acceptable terms, or at all. As a result, we may not complete the development and commercialization of, or obtain regulatory approval for our existing product candidates or develop new product candidates.
- We are currently developing several product candidates. If we are unable to successfully complete clinical development of, obtain regulatory approval for and commercialize our product candidates, our business prospects will be significantly harmed.
- If the Phase 3 clinical trial of entinostat in combination with exemestane in advanced HR+, HER2- breast cancer patients fails to demonstrate safety and efficacy to the satisfaction of regulatory

authorities or does not otherwise produce positive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of entinostat.

- Although the NCI has entered into a Special Protocol Assessment agreement with the FDA relating to the pivotal Phase 3 clinical trial of entinostat for advanced HR+, HER2- breast cancer, this agreement does not guarantee any particular outcome with respect to regulatory review of the trial or any associated NDA for entinostat.
- Our strategy of combining entinostat with immune checkpoint inhibitors has undergone limited clinical testing and we may fail to show that the combination is safe and well tolerated and demonstrates additional clinical benefit from the combination.
- The regulatory approval processes of the FDA and foreign regulatory authorities are lengthy, time-consuming and inherently unpredictable. Our inability to obtain regulatory approval for our product candidates could harm our business.
- Our product candidates may not achieve adequate market acceptance among physicians, patients, healthcare payors and others in the medical community to be commercially successful.
- We face significant competition from other biotechnology and pharmaceutical companies, and our operating results will suffer if we fail to compete effectively.
- If we are unable to obtain or protect intellectual property rights, we may not be able to compete effectively in our market.

**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 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 such information 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 and a Smaller Reporting Company**

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For so long as we remain an emerging growth company, we are permitted and may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies, including:

- 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 reporting exemptions until we are no longer an emerging growth company. We will remain an emerging growth company until the earlier of: (i) December 31, 2021; (ii) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion; (iii) the last day of the fiscal year in which we are deemed to be a large accelerated filer, which means the market value of our common stock held by non-affiliates exceeds $700 million as of June 30 of such fiscal year; or (iv) the date on which we have issued more than $1 billion in non-convertible debt during the prior three-year period. We may choose to take advantage of some or all of these available exemptions. We have taken advantage of some reduced reporting requirements in our public filings. Accordingly, the information that we provide stockholders may be different than the information you receive from other public companies in which you hold stock.

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.

We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as (i) our voting and non-voting common stock held by nonaffiliates is less than $250.0 million measured on the last business day of our second fiscal quarter or (ii) our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

**THE OFFERING**

| | |
|---|---|
| Common Stock Offered By Us | Shares of our common stock having an aggregate offering price of up to $50,000,000. |
| Common Stock to be Outstanding After This Offering | Up to 32,819,200 shares (as more fully described in the notes following this table), assuming sales of 5,701,254 shares of our common stock in this offering at an offering price of $8.77 per share, which was the last reported sale price of our common stock on Nasdaq on August 27, 2019. The actual number of shares issued will vary depending on the sales price under this offering. |
| Manner of Offering | "At-the-market" offering that may be made from time to time through our sales agent, Cowen. See "Plan of Distribution" on page S-19. |
| Use of Proceeds | We currently intend to use the net proceeds from this offering primarily to fund the research and development of our product candidates, 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. See "Use of Proceeds" on page S-10 of this prospectus. |
| Risk Factors | Investing in our common stock involves significant risks. See "Risk Factors" on page S-7 of this prospectus, and under similar headings in other documents incorporated by reference into this prospectus. |
| Nasdaq Global Select Market symbol | "SNDX" |

The above discussion and table are based on 27,117,946 shares of our common stock outstanding as of June 30, 2019, and exclude:

- 1,982,326 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2019 under our 2007 Stock Plan, as amended, or 2007 Plan, at a weighted average exercise price of $8.12 per share;
- 3,788,290 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2019 under our 2015 Omnibus Incentive Plan, or 2015 Plan, at a weighted average exercise price of $8.67 per share;
- 4,500,000 shares of our common stock issuable upon the exercise of Pre-Funded Warrants outstanding as of June 30, 2019, at an exercise price of $0.001 per share;
- 2,297,517 shares of our common stock issuable upon the exercise of Series 1 warrants outstanding as of June 30, 2019, at an exercise price of $12.00 per share;
- 2,297,522 shares of our common stock issuable upon the exercise of Series 2 warrants outstanding as of June 30, 2019, at an exercise price of $18.00 per share;
- 876,639 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; and
- 875,842 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.

## RISK FACTORS

*Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described below and under the section titled "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018, and in our most recent Quarterly Report on Form 10-Q, as updated by our subsequent filings, which 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. Please also read carefully the section below titled "Special Note Regarding Forward-Looking Statements."*

### Additional Risks Related to This Offering

***You may experience dilution.***

The offering price per share in this offering may exceed the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 5,701,254 shares of our common stock are sold at a price of $8.77 per share, the last reported sale price of our common stock on Nasdaq on August 27, 2019, for aggregate gross proceeds of $50.0 million, and after deducting commissions and estimated offering expenses payable by us, you would experience immediate dilution of $5.61 per share, representing the difference between our as adjusted net tangible book value per share as of June 30, 2019 after giving effect to this offering and the assumed offering price. The exercise of outstanding stock options and warrants would result in further dilution of your investment. Further, if the sales of the shares offered hereby were to occur at less than $12.00 per share at a time when our Series 1 warrants and Series 2 warrants are outstanding, then an exercise price for those warrants would be adjusted downward, which will result in us receiving less proceeds than we otherwise would and could result in further dilution of your investment if such warrants were then exercised. See the section titled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering. Because the sales of the shares offered hereby will be made directly into the market or in negotiated transactions, the prices at which we sell these shares will vary and these variations may be significant. Purchasers of the shares we sell, as well as our existing stockholders, will experience significant dilution if we sell shares at prices significantly below the price at which they invested.

***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 government. 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.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference in this prospectus 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 and our most recent Quarterly Report on Form 10-Q, as well as any amendments thereto, filed with the SEC.

In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "might," "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.

Any statements in this prospectus, or incorporated herein by reference, 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 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 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 and cancer-related indications;
- the timing of the progress and receipt of data from the Phase 1b clinical trial of SNDX-6352 in cGVHD;
- the timing of the progress and receipt of data from the Phase 1/2 clinical trial of SNDX-5613 in patients with relapsed/refractory acute leukemia and the potential use of SNDX-5613 to treat acute leukemias;
- the timing of the progress and receipt of data from the Phase 1b/2 clinical trial of entinostat with Tecentriq® (atezolizumab) from Genentech, Inc., a member of the Roche Group, in advanced HR+, HER2- breast cancer;
- 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., a subsidiary of Allergan plc;

- 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.

You should refer to the “Risk Factors” section contained in this prospectus 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.

## USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to $50.0 million from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the sales agreement with Cowen as a source of financing.

We currently intend to use the net proceeds from this offering primarily for fund the research and development of our product candidates, 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 government.

## DILUTION

Our net tangible book value as of June 30, 2019 was $55.3 million, or $2.04 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, 2019. 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 5,701,254 shares of our common stock in this offering at an assumed offering price of $8.77 per share, the last reported sale price of our common stock on Nasdaq on August 27, 2019, and after deducting estimated offering commissions and offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2019 would have been $103.6 million, or $3.16 per share. This represents an immediate increase in net tangible book value of $1.12 per share to existing stockholders and immediate dilution of $5.61 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:

| | | |
|---|---|---|
| Assumed public offering price per share | | $8.77 |
| Net tangible book value per share of as June 30, 2019 | $2.04 | |
| Increase in net tangible book value per share attributable to this offering | $1.12 | |
| As adjusted net tangible book value per share as of June 30, 2019, after giving effect to this offering | | $3.16 |
| Dilution per share to investors purchasing our common stock in this offering | | $5.61 |

The above discussion and table are based on 27,117,946 shares of our common stock outstanding as of June 30, 2019, and exclude:

- 1,982,326 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2019 under our 2007 Plan, at a weighted average exercise price of $8.12 per share;
- 3,788,290 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2019 under our 2015 Plan, at a weighted average exercise price of $8.67 per share;
- 4,500,000 shares of our common stock issuable upon the exercise of pre-funded warrants outstanding as of June 30, 2019 at an exercise price of $0.001 per share;
- 2,297,517 shares of our common stock issuable upon the exercise of Series 1 warrants outstanding as of June 30, 2019, at an exercise price of $12.00 per share;
- 2,297,522 shares of our common stock issuable upon the exercise of Series 2 warrants outstanding as of June 30, 2019, at an exercise price of $18.00 per share;
- 876,639 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; and
- 875,842 shares of our common stock reserved for issuance under our or ESPP, as well as any future increases in the number of shares of our common stock reserved for issuance under the ESPP.

The table above assumes for illustrative purposes that an aggregate of 5,701,254 shares of our common stock are sold during the term of the sales agreement with Cowen at a price of $8.77 per share, the last reported sale price of our common stock on Nasdaq on August 27, 2019, for aggregate gross proceeds of $50.0 million. The shares subject to the sales agreement with Cowen are being sold from time to time at various prices. An increase of $1.00 per share in the price at which the shares are sold from the assumed offering price of $8.77 per

share shown in the table above, assuming all of our common stock in the aggregate amount of $50.0 million during the term of the sales agreement with Cowen is sold at that price, would increase our adjusted net tangible book value per share after the offering to $3.21 per share and would increase the dilution in net tangible book value per share to new investors in this offering to $6.56 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of $1.00 per share in the price at which the shares are sold from the assumed offering price of $8.77 per share shown in the table above, assuming all of our common stock in the aggregate amount of $50.0 million during the term of the sales agreement with Cowen is sold at that price, would decrease our adjusted net tangible book value per share after the offering to $3.09 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to $4.68 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only and assumes no exercise of the options or warrants outstanding as of June 30, 2019. For more information, see “Description of Capital Stock.”

To the extent that options and warrants outstanding as of June 30, 2019 have been or may be exercised or other shares issued, investors purchasing our common stock in this offering may experience further dilution. Further, if the sales of the shares offered hereby were to occur at the assumed offering price of $8.77 per share at a time when our Series 1 warrants and Series 2 warrants were outstanding, then the exercise price for those warrants would be adjusted downward, which will result in us receiving less proceeds than we otherwise would and could result in further dilution if such warrants were then exercised. 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.

## 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 June 30, 2019, we had outstanding 27,117,946 shares of common stock.

### 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 66⅔% 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 on a non-cumulative basis.

#### *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.

### 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 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.

**Warrants**

*2019 Warrants*

In March 2019, we issued pre-funded warrants to purchase 2,500,000 shares of common stock, or the Pre-Funded Warrants, to certain investors. The Pre-Funded Warrants are exercisable immediately upon issuance at an exercise price of $0.0001 per share.

We also issued two series of warrants, Series 1 warrants to purchase 2,297,517 shares of our common stock and Series 2 warrants to purchase 2,297,522 shares of our common stock, or collectively, the Series Warrants. The Series Warrants are immediately exercisable. Each Series 1 Warrant has an initial exercise price of $12.00 per share of common stock and each Series 2 Warrant has an initial exercise price of $18.00 per share of common stock, in each case subject to certain adjustments. If, prior to the expiration date of the Series Warrant, we sell additional capital stock or derivative securities convertible into or exercisable for capital stock (other than Exempted Securities as defined in the Series Warrant) in one or more related transactions primarily for the purpose of raising capital at a Weighted-Average Price (as described below) below $12.00 per share, then the initial exercise price of the Series Warrants will be automatically reset upon exercise to an exercise price, or the Adjusted Exercise Price, that is the midpoint between the initial exercise price and the lowest Weighted-Average Price per share at which we sell capital stock or derivative securities convertible into or exercisable for capital stock in a subsequent offering prior to the exercise date; *provided*, *however*, that the Adjusted Exercise Price will not be reduced below $6.00 per share. The Weighted-Average Price shall be calculated as the weighted-average common stock equivalent price of the equity securities sold in such transaction(s) (excluding any derivative securities with an exercise or conversion price that is above the closing sale price as of the time of pricing such offering(s)). In no event will the exercise price for the Series Warrants be adjusted more than once pursuant to this adjustment mechanism.

The Pre-Funded Warrants have a term of 20 years. The Series Warrants expire on the earlier of (i) 90 days following our confirmation to holders of the release of positive data confirming the achievement of the specified primary endpoint of overall survival benefit in the E2112 clinical trial in breast cancer patients, or (ii) December 31, 2020.

The Pre-Funded Warrants and the Series Warrants may not be exercised by the holder to the extent that the holder, together with its affiliates, would beneficially own, after such exercise more than 9.99% of the shares of our common stock then outstanding (subject to the right of the holder to increase or decrease such beneficial ownership limitation upon notice to us, provided that such limitation cannot exceed 19.99%) and provided that any increase in the beneficial ownership limitation shall not be effective until 61 days after such notice is delivered.

*2018 Warrants*

In June 2018, we signed an exchange agreement with Biotechnology Value Fund and certain affiliated funds, collectively referred to as BVF, under which BVF exchanged 2,000,000 shares of common stock for 2,000,000 warrant shares, or the BVF Warrants. The BVF Warrants are exercisable at an exercise price per share equal to $0.0001 per share. The BVF Warrants may not be exercised by BVF to the extent that it, together with its affiliates, would beneficially own, after such exercise more than 9.99% of the shares of our common stock then outstanding (subject to the right of the holder to increase or decrease such beneficial ownership limitation upon notice to us, provided that such limitation cannot exceed 19.99%) and provided that any increase in the beneficial ownership limitation shall not be effective until 61 days after such notice is delivered. The BVF Warrants have a term of 20 years.

**Anti-Takeover Provisions**

***Amended and Restated Certificate of Incorporation and Amended and Restated 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 66⅔% 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 P.O. Box 505000, Louisville, KY 40233-5000. 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 Nasdaq**

Our common stock is listed on Nasdaq under the symbol "SNDX."

## PLAN OF DISTRIBUTION

We have entered into a sales agreement with Cowen, under which we may issue and sell from time to time up to $50,000,000 of our common stock through Cowen as our sales agent. Sales of our common stock, if any, will be made at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on Nasdaq or any other trading market for our common stock. If authorized by us in writing, Cowen may purchase shares of our common stock as principal.

Cowen will offer our common stock subject to the terms and conditions of the sales agreement on a daily basis or as otherwise agreed upon by us and Cowen. We will designate the maximum amount of common stock to be sold through Cowen on a daily basis or otherwise determine such maximum amount together with Cowen. Subject to the terms and conditions of the sales agreement, Cowen will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us. We may instruct Cowen not to sell common stock if the sales cannot be effected at or above the price designated by us in any such instruction. Cowen or we may suspend the offering of our common stock being made through Cowen under the sales agreement upon proper notice to the other party. Cowen and we each have the right, by giving written notice as specified in the sales agreement, to terminate the sales agreement in each party's sole discretion at any time.

The aggregate compensation payable to Cowen as sales agent up to 3.0% of the gross sales price of the shares sold through it pursuant to the sales agreement. We have also agreed to reimburse Cowen up to $50,000 of Cowen's actual outside legal expenses incurred by Cowen in connection with this offering, and for certain other expenses, including Cowen's FINRA counsel fees in an amount up to $10,000. We estimate that the total expenses of the offering payable by us, excluding commissions payable to Cowen under the sales agreement, will be approximately $300,000.

The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock.

Cowen will provide written confirmation to us following the close of trading on Nasdaq on each day in which common stock is sold through it as sales agent under the sales agreement. Each confirmation will include the number of shares of common stock sold through it as sales agent on that day, the volume weighted average price of the shares sold, the percentage of the daily trading volume and the net proceeds to us.

We will report at least quarterly the number of shares of common stock sold through Cowen under the sales agreement, the net proceeds to us and the compensation paid by us to Cowen in connection with the sales of common stock.

Settlement for sales of common stock will occur, unless the parties agree otherwise or otherwise required by law, on the third business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sales of our common stock on our behalf, Cowen will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation paid to Cowen will be deemed to be underwriting commissions or discounts. We have agreed in the sales agreement to provide indemnification and contribution to Cowen against certain liabilities, including liabilities under the Securities Act. As sales agent, Cowen will not engage in any transactions that stabilizes our common stock.

Our common stock is listed on Nasdaq and trades under the symbol "SNDX." The transfer agent of our common stock is Computershare Trust Company, N.A.

Cowen and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees.

## LEGAL MATTERS

The validity of the common stock offered by this prospectus will be passed upon by Cooley LLP, Palo Alto, California. Goodwin Procter LLP, New York, New York, is counsel for Cowen in connection with this offering.

## 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 a registration statement we filed with the SEC. 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. 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 information incorporated by reference is considered to be a part of this prospectus, and the information that we file later with the SEC will automatically update and, where applicable, supersede the information already incorporated by reference. Any statement contained in this prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or a subsequently filed document incorporated by reference modifies or replaces that statement. The SEC file number for the documents incorporated by reference in this prospectus is 001-37708.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 7, 2019, as amended by the Form 10-K/A filed with the SEC on March 18, 2019;

- our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 30, 2019 (excluding those portions that are not incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2018);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2019 and June 30, 2019, filed with the SEC on May 8, 2019 and August 7, 2019, respectively;
- our Current Reports on Form 8-K filed with the SEC on February 12, 2019, March 29, 2019, June 11, 2019 and July 8, 2019, 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.

Notwithstanding the statements in the preceding paragraphs, no document, report or exhibit (or portion of any of the foregoing) or any other information that we have “furnished” to the SEC pursuant to the Exchange Act shall be incorporated by reference into this prospectus.

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.

**$50,000,000**

**Common Stock**

**PROSPECTUS**

**Cowen**

**September 10, 2019**