SOLIGENIX, INC.
Form POS AM
April 26, 2017
As filed with the Securities and Exchange Commission on April 26, 2017

Registration No. 333-214038

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-1

ON

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

SOLIGENIX, INC.

(Exact name of registrant as specified in its charter)

Delaware	**2834**	**41-1505029**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

Soligenix, Inc.

29 Emmons Drive, Suite C-10

Princeton, New Jersey 08540

(609) 538-8200

(Address, including zip code, and telephone number, including area code, of registrant's principal executive office)

Christopher J. Schaber, Ph.D.

President and Chief Executive Officer

Soligenix, Inc.

29 Emmons Drive, Suite C-10

Princeton, New Jersey 08540

(609) 538-8200

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the Securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering:

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer (Do not check if smaller reporting company)	Smaller reporting company
	Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period to comply with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act.

Pursuant to Rule 429 under the Securities Act, the prospectus contained in this Post-Effective Amendment No. 1 to Form S-1 on Form S-3 (the "Registration Statement") will be used as a combined prospectus in connection with this Registration Statement, Registration Statement No. 333-184762 (the "184762 Registration Statement"), Registration Statement No. 333-199761 (the "199761 Registration Statement"), Registration Statement No. 333-210665 (the "210665 Registration Statement") and Registration Statement No. 333-215059 (the "215059 Registration Statement"). This Registration Statement constitutes Post-Effective Amendment No. 1 to this Registration Statement, Post-Effective Amendment No. 5 to Form S-1 on Form S-3 to the 184762 Registration Statement, Post-Effective Amendment No. 3 to Form S-1 on Form S-3 to the 199761 Registration Statement, Post-Effective Amendment No. 1 to Form S-1 on Form S-3 to the 210665 Registration Statement and Post-Effective Amendment No. 1 to Form S-1 on Form S-3 to the 215059 Registration Statement.

Each of Post-Effective Amendment No. 5 to Form S-1 on Form S-3 to the 184762 Registration Statement, Post-Effective Amendment No. 3 to Form S-1 on Form S-3 to the 199761 Registration Statement, Post-Effective Amendment No. 1 to Form S-1 on Form S-3 to the 210665 Registration Statement and Post-Effective Amendment No. 1 to Form S-1 on Form S-3 to the 215059 Registration Statement will become effective concurrently with the effectiveness of this Registration Statement in accordance with Section 8(c) of the Securities Act.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.

EXPLANATORY NOTE

The Registrant previously filed Post-Effective Amendment No. 4 to Registration Statement on Form S-1 (SEC File No. 333-184762) (the "184762 Registration Statement") with the Securities and Exchange Commission (the "SEC") on March 31, 2016, which was declared effective by the SEC on April 14, 2016, for the registration of (i) 303,693 shares of common stock underlying warrants previously issued by the Registrant, and (ii) the related preferred stock purchase rights issuable in accordance with the Rights Agreement dated June 22, 2007 (the "Rights Agreement") between the Registrant and American Stock Transfer & Trust Company, which are attached to and trade with our common stock. The Registrant previously filed Post-Effective Amendment No. 2 to Registration Statement on Form S-1 (SEC File No. 333-199761) (the "199761 Registration Statement") with the SEC on March 31, 2016, which was declared effective by the SEC on April 14, 2016, for the registration of (i) 110,932 shares of common stock underlying warrants previously issued by the Registrant, and (ii) the related preferred stock purchase rights issuable in accordance with the Rights Agreement, which are attached to and trade with our common stock. The Registrant previously filed a Registration Statement on Form S-1 (SEC File No. 333-210665) (the "210665 Registration Statement") with the SEC on April 8, 2016, which was declared effective by the SEC on April 28, 2016, for the registration of 560,000 shares of common stock for resale by the selling stockholder. The Registrant previously filed Amendment No. 4 to Registration Statement on Form S-1 (SEC File No. 333-214038) (the "214038 Registration Statement") with the SEC on November 22, 2016, which was declared effective by the SEC on November 22, 2016, for the registration of (i) 2,197,453 shares of common stock, (ii) warrants to purchase 2,235,670 shares of common stock, (iii) 2,235,670 shares of common stock underlying the warrants and (iv) the related preferred stock purchase rights issuable in accordance with the Rights Agreement, which are attached to and trade with the common stock. On December 13, 2016, the Registrant filed a Registration Statement on Form S-1 (SEC File No. 333-215059) (the "215059 Registration Statement" and, together with the 184762 Registration Statement, the 199761 Registration Statement, the 210665 Registration Statement and the 214038 Registration Statement, the "Registration Statements"), which became effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "Securities Act"), to register 203,172 additional shares of common stock underlying warrants registered under the 214038 Registration Statement.

This Post-Effective Amendment No. 1 to Form S-1 filed on Form S-3, amending the Registration Statements, is filed (1) to convert the Registration Statements into registration statements on Form S-3 pursuant to Rule 429 under the Securities Act, and (2) to update the Registration Statements in accordance with Section 10(a)(3) of the Securities Act and Rule 401(b) under the Securities Act. This Registration Statement, which is Post-Effective Amendment No. 1 to the Registration Statement, also constitutes Post-Effective Amendment No. 5 to Form S-1 on Form S-3 to the 184762 Registration Statement, Post-Effective Amendment No. 3 to Form S-1 on Form S-3 to the 199761 Registration Statement, Post-Effective Amendment No. 1 to Form S-1 on Form S-3 to the 210665 Registration Statement and Post-Effective Amendment No. 1 to Form S-1 on Form S-3 to the 215059 Registration Statement (collectively, the "Post-Effective Amendments"), and such Post-Effective Amendments shall hereafter become effective concurrently with the effectiveness of this Registration Statement and in accordance with Section 8(c) of the Securities Act.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION DATED APRIL 26, 2017

560,000 Shares of Common Stock for Resale by Selling Stockholders

2,775,587 Shares of Common Stock Issuable Upon Exercise of Outstanding Warrants

This prospectus relates to the offer and sale by Soligenix, Inc. and/or the resale by certain selling stockholders of up to 3,335,587 shares of common stock as follows:

the resale by Lincoln Park Capital Fund, LLC ("Lincoln Park") of up to 560,000 shares of our common stock that have been or may be issued pursuant to the purchase agreement dated March 22, 2016 that we entered into with Lincoln Park, and previously registered on Registration Statement No. 333-210665;

the issuance by us of up to 261,250 shares of common stock that are issuable at a purchase price of $0.80 per share from time to time upon exercise of the outstanding warrants issued to the investors in connection with our June 2013 public offering, the issuance of which were previously registered on Registration Statement No. 333-184762;

the issuance by us of up to 110,932 shares of common stock that are issuable at a purchase price of $14.80 per share from time to time upon exercise of the outstanding warrants issued to the investors and the underwriter in connection with our December 2014 public offering, the issuance of which were previously registered on Registration Statement No. 333-199761; and

the issuance by us of up to 2,403,405 shares of common stock that are issuable at a purchase price of $3.95 per share from time to time upon exercise of the outstanding warrants issued to the investors and the underwriter in connection with our December 2016 public offering, the issuance of which were previously registered on Registration Statement Nos. 333-214038 and 333-215059.

We will not receive any proceeds from the resale of any of the shares of common stock being registered hereby sold by Lincoln Park; however, we may receive up to $10,287,680 from future sales of shares under the purchase agreement. Additionally, we may receive proceeds from our issuance of common stock upon exercise of the warrants, other than pursuant to any applicable cashless exercise provisions of the warrants.

Our common stock and our common stock warrant issued in connection with our December 2016 public offering are listed on The NASDAQ Capital Market under the symbols “SNGX” and “SNGXW”, respectively. On April 20, 2017, the last reported sale prices for our common stock and our common stock warrant issued in connection with our 2016 public offering on The NASDAQ Capital Market were $3.59 per share and $0.64 per warrant. There is no established trading market for our other warrants.

Lincoln Park may sell the shares of common stock registered for resale in this prospectus in a number of different ways and at varying prices. With regard only to the shares it sells for its own behalf, Lincoln Park is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended. We have paid all of the registration expenses incurred in connection with the registration of the shares. We will not pay any of the selling commissions, brokerage fees and related expenses.

Investing in our common stock involves a high degree of risk. See “Risk Factors” beginning on page 8 to read about factors you should consider before investing in shares of our common stock.

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 _____, 2017.

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You should rely only on the information contained in this prospectus. We have not authorized any other person to provide you with information different from or in addition to that contained in this prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where an offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA AND MARKET INFORMATION

The information contained in this prospectus and the documents incorporated herein by reference include forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are often identified by words such as “may,” “expect,” “intend,” “anticipate,” “believe,” “estimate,” “continue,” “plan,” “potential” and similar expressions. These statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed for the reasons described in this prospectus and in the documents incorporated herein by reference. You should not place undue reliance on these forward-looking statements.

You should be aware that our actual results could differ materially from those contained in the forward-looking statements due to a number of factors, including:

- our dependence on the expertise, effort, priorities and contractual obligations of third parties in the clinical trials, manufacturing, marketing, sales and distribution of our products;
- the domestic and international regulatory process and related laws, rules and regulations governing our technologies and our proposed products, including: (i) the timing, status and results of our or our commercial partners’ filings with the U.S Food and Drug Administration (the “FDA”) and its foreign equivalents, (ii) the timing, status and results of non-clinical work and clinical studies, including regulatory review thereof and (iii) the heavily regulated industry in which we operate our business generally;
- uncertainty as to whether our product candidates will be safe and effective to support regulatory approvals;
- significant uncertainty inherent in developing vaccines against bioterror threats, and manufacturing and conducting preclinical and clinical trials of vaccines;
- our ability to obtain future financing or funds when needed, either through the raising of capital, the incurrence of convertible or other indebtedness or through strategic financing or commercialization partnerships;
- that product development and commercialization efforts will be reduced or discontinued due to difficulties or delays in clinical trials or a lack of progress or positive results from research and development efforts;
- our ability to obtain further grants and awards from the U.S. Government and other countries, and maintenance of our existing grants;
- our ability to enter into any biodefense procurement contracts with the U.S. Government or other countries;
- our ability to patent, register and protect our technology from challenge and our products from competition;
- maintenance or expansion of our license agreements with our current licensors;

the protection and control afforded by our patents or other intellectual property, and any interest in patents or other intellectual property that we license, or our or our partners' ability to enforce our rights under such owned or licensed patents or other intellectual property;

changes in healthcare regulation;

changes in the needs of biodefense procurement agencies;

maintenance and progression of our business strategy;

the possibility that our products under development may not gain market acceptance;

our expectations about the potential market sizes and market participation potential for our product candidates may not be realized;

our expected revenues (including sales, milestone payments and royalty revenues) from our product candidates and any related commercial agreements of ours may not be realized;

the ability of our manufacturing partners to supply us or our commercial partners with clinical or commercial supplies of our products in a safe, timely and regulatory compliant manner and the ability of such partners to address any regulatory issues that have arisen or may in the future arise; and

competition existing today or that may arise in the future, including the possibility that others may develop technologies or products superior to our products.

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You should also consider carefully the statements under “Risk Factors” and other sections of this prospectus, and other documents incorporated herein by reference including Sections entitled “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 in our Quarterly Reports on Form 10-Q, as well as any amendments thereto, filed with the SEC, which address additional factors that could cause our actual results to differ from those set forth in the forward-looking statements and could materially and adversely affect our business, operating results and financial condition. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the applicable cautionary statements.

The forward-looking statements speak only as of the date on which they are made, and, except to the extent required by federal securities laws, we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. In addition, we cannot assess the impact of each factor 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.

Industry Data and Market Information

This prospectus and the documents incorporated herein by reference contain estimates, projections and other statistical data made by independent parties and by us relating to market size and growth, the potential value of government procurement contracts, the incidence of certain medical conditions and other industry data. These data, to the extent they contain estimates or projections, involve a number of subjective assumptions and limitations, and you are cautioned not to give undue weight to such estimates or projections. Industry publications and other reports we have obtained from independent parties generally state that the data contained in these publications or other reports have been obtained in good faith or from sources considered to be reliable, but they do not guarantee the accuracy or completeness of such data. While we believe that the data from these industry publications and other reports are generally reliable, we have not independently verified the accuracy or completeness of such data. These and other factors could cause results to differ materially from those expressed in these publications and reports.

We have provided estimates of the potential worldwide market or value of potential government procurement contracts for certain of our product candidates. These estimates are based on a number of factors, including our expectation as to the number of patients with a certain medical condition that would potentially benefit from a particular product candidate, the current costs of treating patients with the targeted medical condition, our expectation that we will be able to demonstrate to the FDA’s satisfaction in our clinical trials that the product candidate is safe and effective, our belief that our product candidate would, if approved, have an assumed treatment cost per patient, historic values of government procurement contracts for vaccines, and our expectation of the dosage of the product candidate. While we have determined these estimates based on assumptions that we believe are reasonable, there are a number of factors that could cause our expectations to change or not be realized. Among these factors are the following: there is no assurance that the product candidate will prove to be safe and effective or will ultimately be approved for sale by the FDA; any FDA approval of the product candidate may contain restrictions on its use or require warning labels; third party payors may not be willing to provide reimbursement for the product candidate at

the assumed price per patient; the government may not be willing to procure our vaccine candidates in amounts or at costs similar to its historic procurement activities; the dosage that ultimately may be approved may be different from the assumed dosage; and doctors may not adopt the product candidate for use as quickly or as broadly as we have assumed. It is possible that the ultimate market for a product candidate or value of procurement contracts will differ significantly from our expectations due to these or other factors. As a result of these and other factors, investors should not place undue reliance on such estimates. See “Risk Factors.”

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including our financial statements and the related notes and the information set forth under the headings "Risk Factors," the information incorporated by reference, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part. Unless otherwise stated or the context requires otherwise, references in this prospectus to "Soligenix," "we," "us," or "our" refer to Soligenix, Inc.

Soligenix, Inc.

Business Overview

We are a late-stage biopharmaceutical company focused on developing and commercializing products to treat rare diseases where there is an unmet medical need. We maintain two active business segments: BioTherapeutics and Vaccines/BioDefense.

Our BioTherapeutics business segment is developing a novel photodynamic therapy (SGX301) utilizing topical synthetic hypericin activated with safe visible fluorescent light for the treatment of cutaneous T-cell lymphoma ("CTCL"), our first-in-class innate defense regulator technology, dusquetide (SGX942) for the treatment of oral mucositis in head and neck cancer, and proprietary formulations of oral beclomethasone 17,21-dipropionate for the prevention/treatment of gastrointestinal ("GI") disorders characterized by severe inflammation, including pediatric Crohn's disease (SGX203) and acute radiation enteritis (SGX201).

Our Vaccines/BioDefense business segment includes active development programs for RiVax®, our ricin toxin vaccine candidate, OrbeShield®, our GI acute radiation syndrome ("GI ARS") therapeutic candidate and SGX943, our melioidosis therapeutic candidate. The development of our vaccine programs currently is supported by our heat stabilization technology, known as ThermoVax®, under existing and on-going government contract funding. With the government contract from the National Institute of Allergy and Infectious Diseases ("NIAID"), we will attempt to advance the development of RiVax® to protect against exposure to ricin toxin. We have advanced the development of OrbeShield® for the treatment of GI ARS with funds received under our awarded government contracts with the Biomedical Advanced Research and Development Authority ("BARDA") and grants from NIAID.

Corporate Information

We were incorporated in Delaware in 1987 under the name Biological Therapeutics, Inc. In 1987, we merged with Biological Therapeutics, Inc., a North Dakota corporation, pursuant to which we changed our name to "Immunotherapeutics, Inc." We changed our name to "Endorex Corp." in 1996, to "Endorex Corporation" in 1998, to "DOR BioPharma, Inc." in 2001, and finally to "Soligenix, Inc." in 2009.

Our principal executive offices are located at 29 Emmons Drive, Suite C-10, Princeton, New Jersey 08540 and our telephone number is (609) 538-8200. We maintain a website at *www.soligenix.com* which contains descriptions of our technology, our product candidates and the trial status of each drug candidate. The information on our website is not incorporated into this prospectus.

Transaction with Lincoln Park

On March 22, 2016, we entered into a purchase Agreement with Lincoln Park (the "LP Purchase Agreement"), pursuant to which Lincoln Park agreed to purchase from us up to an aggregate of $12 million of our common stock (subject to certain limitations) from time to time over a 36-month period. Also on March 22, 2016, we entered into a Registration Rights Agreement (the "LP Registration Rights Agreement") with Lincoln Park, pursuant to which we filed with the U.S. Securities and Exchange Commission (the "SEC") a registration statement to register for resale under the Securities Act of 1933, as amended (the "Securities Act"), the shares that have been or may be issued to Lincoln Park under the LP Purchase Agreement.

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We did not have the right to continue sales to Lincoln Park under the LP Purchase Agreement until the SEC has declared effective the registration statement of which this prospectus forms a part. Thereafter, we may, from time to time and at our sole discretion, direct Lincoln Park to purchase shares of our common stock in amounts up to 10,000 shares on any single business day so long as at least one business day has passed since the most recent purchase. We can also increase the amount of our common stock to be purchased under certain circumstances to up to 25,000 shares but not exceeding $750,000 per purchase plus an additional "accelerated amount" under certain circumstances. Except as described in this prospectus, there are no trading volume requirements or restrictions under the LP Purchase Agreement, and we will control the timing and amount of any sales of our common stock to Lincoln Park. The purchase price of the shares that may be sold to Lincoln Park under the LP Purchase Agreement will be based on the market price of our common stock immediately preceding the time of sale as computed under the LP Purchase Agreement without any fixed discount; provided that in no event will such shares be sold to Lincoln Park where such sale would result in Lincoln Park's beneficial ownership exceeding 4.99% of the then outstanding shares of our common stock. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute such price. We may at any time in our sole discretion terminate the LP Purchase Agreement without fee, penalty or cost upon one business day notice. Lincoln Park may not assign or transfer its rights and obligations under the LP Purchase Agreement.

As of April 20, 2017, there were 5,472,532 shares of our common stock outstanding, of which 4,336,471 shares were held by non-affiliates, including the 277,135 shares that we have already issued to Lincoln Park under the LP Purchase Agreement. Although the LP Purchase Agreement provides that we may sell up to $12,000,000 of our common stock to Lincoln Park only 560,000 shares of our common stock are being offered under this prospectus, which represents (i) 17,135 shares that we have issued to Lincoln Park as a commitment fee, (ii) 260,000 shares which have be sold to Lincoln Park under the LP Purchase Agreement for an aggregate amount of $1,712,320, (iii) 240,000 shares which may be sold to Lincoln Park in the future under the LP Purchase Agreement and (iv) 42,865 shares that we are required to issue proportionally in the future, as an additional commitment fee, if and when we sell shares to Lincoln Park under the LP Purchase Agreement. The additional commitment shares are issued pro rata as Lincoln Park purchases up to the remaining $10,287,680 of our common stock as directed by us. For example, if we elect, at our sole discretion, to require Lincoln Park to purchase $100,000 of our stock, then we would issue 417 shares of the pro rata commitment fee, which is the product of $100,000 (the amount we have elected to sell) divided by $10,287,680 (the total remaining amount we can sell Lincoln Park under the LP Purchase Agreement) multiplied by 42,865 (the total number of remaining pro rata commitment shares), rounded up or down to the nearest whole share. The pro rata commitment shares will only be issued pursuant to this formula as and when we elect at our discretion to sell stock to Lincoln Park. Lincoln Park may not assign or transfer its rights and obligations under the LP Purchase Agreement. If all of the 560,000 shares offered by Lincoln Park under this prospectus were issued and outstanding as of the date hereof, such shares would represent 9.7% of the total number of shares of our common stock outstanding and 12.9% of the total number of outstanding shares held by non-affiliates, in each case as of the date hereof. If we elect to issue and sell more than the 560,000 shares offered under this prospectus to Lincoln Park, which we have the right, but not the obligation, to do, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our stockholders. The number of shares ultimately offered for resale by Lincoln Park is dependent upon the number of shares we sell to Lincoln Park under the LP Purchase Agreement.

Issuances of our common stock under the LP Purchase Agreement will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted as a result of any such issuance. Although the number of shares of common stock that our existing stockholders own will not decrease, the shares owned by our existing stockholders will represent a smaller percentage of our total outstanding shares after any such issuance to Lincoln Park.

Transactions with Holders of Warrants

June 2013 Public Offering

On June 25, 2013, we consummated a public offering of an aggregate of 677,400 shares of common stock, together with warrants to purchase up to 508,050 shares of common stock. In connection with the offering, we also issued the placement agent a warrant to purchase up to 33,609 shares of common stock. Such warrants may be exercised on a "cashless" basis. We refer to the warrants issued to the investors and the placement agent in connection with the offering as the "2013 Warrants."

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As of the date of this prospectus, 261,250 shares of common stock remain issuable upon the exercise of the 2013 Warrants. The 2013 Warrants expire in June 2018.

As of the date of this prospectus, the 2013 Warrants were exercisable to purchase shares of common stock at $0.80 per share. The exercise price and the number of shares of common stock purchasable upon the exercise of each 2013 Warrant are subject to adjustment upon the happening of certain events, such as stock dividends, distributions, and splits.

December 2014 Public Offering

On December 24, 2014, we consummated a public offering of an aggregate of 188,653 shares of common stock, together with warrants to purchase up to 113,192 shares of common stock. In connection with the offering, we also issued the underwriter a warrant to purchase up to 3,740 shares of common stock. We refer to the warrants issued to the investors and the placement agent in connection with the offering as the “2014 Warrants.”

As of the date of this prospectus, 110,932 shares of common stock remain issuable upon the exercise of the 2014 Warrants, which expire in 2019.

As of the date of this prospectus, the 2014 Warrants were exercisable to purchase shares of common stock at $14.80 per share. The exercise price and the number of shares of common stock purchasable upon the exercise of each 2014 Warrant are subject to adjustment upon the happening of certain events, such as stock dividends, distributions, and splits.

December 2016 Public Offering

On December 16, 2016, we consummated a public offering of an aggregate of 1,670,000 shares of common stock, together with warrants to purchase up to 2,370,005 shares of common stock. In connection with the offering, we also issued the underwriter a warrant to purchase up to 33,400 shares of common stock. The warrants issued to the underwriter We refer to the warrants issued to the investors and the underwriter in connection with the offering as the “2016 Warrants.”

As of the date of this prospectus, 2,403,405 shares of common stock remain issuable upon the exercise of the 2016 Warrants. The 2016 Warrants issued to investors were exercisable upon issuance and expire in 2021 and the 2016 Warrants issued to the underwriter will become exercisable in December 2017 and will expire in 2021.

As of the date of this prospectus, the exercise price of the 2016 Warrants is $3.95 per share of common stock. The exercise price and the number of shares of common stock purchasable upon the exercise of each 2016 Warrant are subject to adjustment upon the happening of certain events, such as stock dividends, distributions, and splits.

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THE OFFERING

Securities offered by Selling Stockholders	Up to 560,000 shares of our common stock by Lincoln Park, consisting of 17,135 commitment shares that we have issued to Lincoln Park; 260,000 that we have sold to Lincoln Park under the LP Purchase Agreement 240,000 shares that we may sell in the future to Lincoln Park under the LP Purchase Agreement; and 42,865 shares that we are required to issue proportionally in the future, as an additional commitment fee, if and when we sell additional shares to Lincoln Park under the LP Purchase Agreement.
Securities offered by us	Up to (i) 261,250 shares of common stock issuable upon the exercise of the 2013 Warrants issued as a part of the securities sold on our June 2013 public offering, which warrants are exercisable until 2018 at an exercise price of $0.80 per share, (ii) 110,932 shares of common stock issuable upon the exercise of the 2014 Warrants issued as a part of the securities sold on our December 2014 public offering, which warrants are exercisable until 2019 at an exercise price of $14.80 per share, and (iii) 2,403,405 shares of common stock issuable upon the exercise of the 2016 Warrants issued as a part of the securities sold on our December 2016 public offering, which warrants are exercisable until 2021 at an exercise price of $3.95 per share.
Common stock outstanding prior to this offering	5,472,532 shares, including 277,135 shares previously issued to Lincoln Park under the LP Purchase Agreement (and included in this offering).
Common stock to be outstanding immediately after this offering	8,530,984 shares, after giving effect to the total issuance of 560,000 shares to Lincoln Park under the LP Purchase Agreement registered hereunder and assuming full exercise of the 2013 Warrants, the 2014 Warrants and the 2016 Warrants, in each case for cash.
Use of proceeds	We will receive no proceeds from the resale of shares by Lincoln Park; however, we may receive up to $10,287,680 in the aggregate from future sales of shares under the LP Purchase Agreement. We will receive proceeds upon the exercise of the outstanding warrants as exercised, other than pursuant to any applicable cashless exercise provisions of the warrants. See “Use of Proceeds” on page 24.
Risk factors	An investment in our securities is highly speculative and involves a significant degree of risk. See “Risk Factors” and other information included in this prospectus and in the documents incorporated by reference into this prospectus for a discussion of factors you should carefully consider before deciding to invest in shares of our securities.

Trading Market	Our common stock and 2016 Warrants are listed on The NASDAQ Capital Market under the symbols “SNGX” and “SNGXW”, respectively.

The number of shares of our common stock that will be outstanding immediately after this offering is based on 5,472,532 shares of common stock outstanding as of December 31, 2016, as adjusted to include the issuance during the first quarter of 2017 of 2,500 shares of common stock to a vendor as partial compensation for service rendered.

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Unless we indicate otherwise, all information in this prospectus:

- reflects a one-for-ten reverse stock split of our issued and outstanding shares of common stock, options and warrants effected on October 7, 2016 and the corresponding adjustment of all common stock prices per share and stock option and warrant exercise prices per share;
- is based on 5,472,532 shares of common stock issued and outstanding as of April 20, 2017;
- excludes 261,250 shares of common stock issuable upon conversion of outstanding 2013 Warrants at an exercise price of $0.80 per share as of April 20, 2017;
- excludes 110,932 shares of common stock issuable upon conversion of outstanding 2014 Warrants at an exercise price of $14.80 per share as of April 20, 2017;
- excludes 2,403,405 shares of common stock issuable upon conversion of outstanding 2016 Warrants at an exercise price of $3.95 per share as of April 20, 2017;
- excludes 77,988 shares of common stock issuable upon conversion of outstanding warrants at a weighted average exercise price of $5.67 per share as of April 20, 2017;
- excludes 464,355 shares of our common stock issuable upon exercise of outstanding stock options under our equity compensation plans at a weighted average exercise price of $12.70 per share as of April 20, 2017.

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RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the following information about these risks, together with the other information about these risks contained in this prospectus, as well as the other information contained in this prospectus or incorporated herein by reference generally, before deciding to buy our securities. Any of the risks we describe below could adversely affect our business, financial condition, operating results or prospects. The market prices for our securities could decline if one or more of these risks and uncertainties develop into actual events and you could lose all or part of your investment. Additional risks and uncertainties that we do not yet know of, or that we currently think are immaterial, may also impair our business operations. You should also refer to the other information contained in this prospectus or incorporated herein by reference, including our financial statements and the related notes.

Risks Related to our Business

We have had significant losses and anticipate future losses; if additional funding cannot be obtained, we may reduce or discontinue our product development and commercialization efforts.

We have experienced significant losses since inception and, at December 31, 2016, had an accumulated deficit of approximately $150 million. We expect to incur additional operating losses in the future and expect our cumulative losses to increase. As of December 31, 2016, we had approximately $8.8 million in cash and cash equivalents available. Based on our projected budgetary needs, funding from existing contracts and grants over the next two years and sales to the purchasers under our existing equity line, we expect to be able to maintain the current level of our operations through at least June 30, 2018.

In September 2014, we entered into a contract with the NIH for the development of RiVax® to protect against exposure to ricin toxin that would provide up to $24.7 million of funding in the aggregate if options to extend the contract are exercised by the NIH. In September 2013, we entered into contracts with NIAID and BARDA for the development of OrbeShield® that would provide up to $32.7 million of funding in the aggregate if options to extend the contracts are exercised by BARDA and the NIH. We have received approximately $18 million in combined BARDA and NIH contract funding for the development of OrbeShield®. We have completed the contract with NIAID and the BARDA contract base period, with BARDA electing not to extend the contract. In September 2009, we received a NIAID grant for approximately $9.4 million for the development of our biodefense programs. In July 2012, we received an additional SBIR grant from NIAID for $600,000 and in February 2014, we were awarded a one-year NIAID SBIR grant award of approximately $300,000 to further evaluate SGX943 as a treatment for melioidosis. Our biodefense grants have an overhead component that allows us an agency-approved percentage over our incurred costs. We estimate that the overhead component associated with our existing contracts and grants will fund some fixed costs for direct employees working on these contracts and grants as well as other administrative costs. We have approximately $17.3 million in awarded contract funding, assuming the NIAID options are exercised for the

development of RiVax®. BARDA has elected not to fund the additional options remaining under the contract.

Our product candidates are positioned for or are currently in clinical trials, and we have not yet generated any significant revenues from sales or licensing of these product candidates. From inception through December 2016, we have expended approximately $70.5 million developing our current product candidates for pre-clinical research and development and clinical trials, and we currently expect to spend approximately $10.7 million over the next 12 months in connection with the development of our therapeutic and vaccine products, licenses, employment agreements, and consulting agreements of which approximately $4.9 million will be reimbursed through our existing government contracts and grants.

We have no control over the resources and funding NIH, BARDA and NIAID may devote to our programs, which may be subject to periodic renewal and which generally may be terminated by the government at any time for convenience. Any significant reductions in the funding of U.S. government agencies or in the funding areas targeted by our business could materially and adversely affect our biodefense program and our results of operations and financial condition. If we fail to satisfy our obligations under the government contracts, the applicable Federal Acquisition Regulations allow the government to terminate the agreement in whole or in part, and we may be required to perform corrective actions, including but not limited to delivering to the government any incomplete work. If NIH, BARDA or NIAID do not exercise future funding options under the contracts or grants, terminate the funding or fail to perform their responsibilities under the agreements or grants, it could materially impact our biodefense program and our financial results.

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Unless and until we are able to generate sales or licensing revenue from one of our product candidates, we will require additional funding to meet these commitments, sustain our research and development efforts, provide for future clinical trials, and continue our operations. There can be no assurance we can raise such funds. If additional funds are raised through the issuance of equity securities, stockholders may experience dilution of their ownership interests, and the newly issued securities may have rights superior to those of the common stock. If additional funds are raised by the issuance of debt, we may be subject to limitations on our operations. If we cannot raise such additional funds, we may have to delay or stop some or all of our drug development programs.

If we are unable to develop our product candidates, our ability to generate revenues and viability as a company will be significantly impaired.

In order to generate revenues and profits, our organization must, along with corporate partners and collaborators, positively research, develop and commercialize our technologies or product candidates. Our current product candidates are in various stages of early clinical and pre-clinical development and will require significant further funding, research, development, pre-clinical and/or clinical testing, regulatory approval and commercialization, and are subject to the risks of failure inherent in the development of products based on innovative or novel technologies. Specifically, each of the following is possible with respect to any of our product candidates:

- we may not be able to maintain our current research and development schedules;
- we may be unable to secure procurement contracts on beneficial economic terms or at all from the U.S. government or others for our biodefense products;
- we may encounter problems in clinical trials; or
- the technology or product may be found to be ineffective or unsafe, or may fail to obtain marketing approval.

If any of the risks set forth above occur, or if we are unable to obtain the necessary regulatory approvals as discussed below, we may be unable to develop our technologies and product candidates and our business will be seriously harmed. Furthermore, for reasons including those set forth below, we may be unable to commercialize or receive royalties from the sale of any other technology we develop, even if it is shown to be effective, if:

- it is not economical or the market for the product does not develop or diminishes;
- we are not able to enter into arrangements or collaborations to manufacture and/or market the product;
- the product is not eligible for third-party reimbursement from government or private insurers;
- others hold proprietary rights that preclude us from commercializing the product;

we are not able to manufacture the product reliably;

others have brought to market similar or superior products; or

the product has undesirable or unintended side effects that prevent or limit its commercial use.

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We expect a number of factors to cause our operating results to fluctuate on a quarterly and annual basis, which may make it difficult to predict our future performance.

We are a late-stage biopharmaceutical company. Our operations to date have been primarily limited to developing our technology and undertaking pre-clinical studies and clinical trials of our product candidates in our two active business segments, BioTherapeutics and Vaccines/BioDefense. We have not yet obtained regulatory approvals for any of our product candidates. Consequently, any predictions made about our future success or viability may not be as accurate as they could be if we had commercialized products. Our financial condition has varied significantly in the past and will continue to fluctuate from quarter-to-quarter or year-to-year due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations include other factors described elsewhere in this prospectus and also include:

- our ability to obtain additional funding to develop our product candidates;
- delays in the commencement, enrollment and timing of clinical trials;
- the success of our product candidates through all phases of clinical development;
- any delays in regulatory review and approval of product candidates in clinical development;
- our ability to obtain and maintain regulatory approval for our product candidates in the United States and foreign jurisdictions;
- potential side effects of our product candidates that could delay or prevent commercialization, limit the indications for any approved drug, require the establishment of risk evaluation and mitigation strategies, or cause an approved drug to be taken off the market;
- our dependence on third-party contract manufacturing organizations to supply or manufacture our products;
- our dependence on contract research organizations to conduct our clinical trials;
- our ability to establish or maintain collaborations, licensing or other arrangements;
- market acceptance of our product candidates;
- our ability to establish and maintain an effective sales and marketing infrastructure, either through the creation of a commercial infrastructure or through strategic collaborations;
- competition from existing products or new products that may emerge;
- the ability of patients or healthcare providers to obtain coverage of or sufficient reimbursement for our products;
- our ability to discover and develop additional product candidates;

our ability and our licensors' abilities to successfully obtain, maintain, defend and enforce intellectual property rights important to our business;

our ability to attract and retain key personnel to manage our business effectively;

our ability to build our finance infrastructure and improve our accounting systems and controls;

potential product liability claims;

potential liabilities associated with hazardous materials; and

our ability to obtain and maintain adequate insurance policies.

Accordingly, the results of any quarterly or annual periods should not be relied upon as indications of future operating performance.

We have no approved products on the market and therefore do not expect to generate any revenues from product sales in the foreseeable future, if at all.

To date, we have no approved product on the market and have not generated any significant product revenues. We have funded our operations primarily from sales of our securities and from government grants. We have not received, and do not expect to receive for at least the next several years, if at all, any revenues from the commercialization of our product candidates. To obtain revenues from sales of our product candidates, we must succeed, either alone or with third parties, in developing, obtaining regulatory approval for, manufacturing and marketing drugs with commercial potential or successfully obtain government procurement or stockpiling agreements. We may never succeed in these activities, and we may not generate sufficient revenues to continue our business operations or achieve profitability.

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Our business is subject to extensive governmental regulation, which can be costly, time consuming and subjects us to unanticipated delays.

Our business is subject to very stringent federal, foreign, state and local government laws and regulations, including the Federal Food, Drug and Cosmetic Act, the Environmental Protection Act, the Occupational Safety and Health Act, and state and local counterparts to these acts. These laws and regulations may be amended, additional laws and regulations may be enacted, and the policies of the FDA and other regulatory agencies may change.

The regulatory process applicable to our products requires pre-clinical and clinical testing of any product to establish its safety and efficacy. This testing can take many years, is uncertain as to outcome, and requires the expenditure of substantial capital and other resources. We estimate that the clinical trials of our product candidates that we have planned will take at least several years to complete. Furthermore, failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon or repeat clinical trials. Favorable results in early studies or trials, if any, may not be repeated in later studies or trials. Even if our clinical trials are initiated and completed as planned, we cannot be certain that the results will support our product candidate claims. Success in preclinical testing, Phase 1 and Phase 2 clinical trials does not ensure that later Phase 2 or Phase 3 clinical trials will be successful. In addition, we, the FDA or other regulatory authorities may suspend clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or the FDA or other regulatory authorities find deficiencies in our submissions or conduct of our trials.

We may not be able to obtain, or we may experience difficulties and delays in obtaining, necessary domestic and foreign governmental clearances and approvals to market a product. Also, even if regulatory approval of a product is granted, that approval may entail limitations on the indicated uses for which the product may be marketed.

Following any regulatory approval, a marketed product and its manufacturer are subject to continual regulatory review. Later discovery of problems with a product or manufacturer may result in restrictions on such product or manufacturer. These restrictions may include product recalls and suspension or withdrawal of the marketing approval for the product. Furthermore, the advertising, promotion and export, among other things, of a product are subject to extensive regulation by governmental authorities in the U.S. and other countries. If we fail to comply with applicable regulatory requirements, we may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and/or criminal prosecution.

There may be unforeseen challenges in developing our biodefense products.

For development of biodefense vaccines and therapeutics, the FDA has instituted policies that are expected to result in accelerated approval. This includes approval for commercial use using the results of animal efficacy trials, rather than

efficacy trials in humans, referred to as the Animal Rule. However, we will still have to establish that the vaccines we are developing are safe in humans at doses that are correlated with the beneficial effect in animals. Such clinical trials will also have to be completed in distinct populations that are subject to the countermeasures; for instance, the very young and the very old, and in pregnant women, if the countermeasure is to be licensed for civilian use. Other agencies will have an influence over the risk benefit scenarios for deploying the countermeasures and in establishing the number of doses utilized in the Strategic National Stockpile. We may not be able to sufficiently demonstrate the animal correlation to the satisfaction of the FDA, as these correlates are difficult to establish and are often unclear. Invocation of the Animal Rule may raise issues of confidence in the model systems even if the models have been validated. For many of the biological threats, the animal models are not available and we may have to develop the animal models, a time-consuming research effort. There are few historical precedents, or recent precedents, for the development of new countermeasure for bioterrorism agents. Despite the Animal Rule, the FDA may require large clinical trials to establish safety and immunogenicity before licensure and it may require safety and immunogenicity trials in additional populations. Approval of biodefense products may be subject to post-marketing studies, and could be restricted in use in only certain populations. The government's biodefense priorities can change, which could adversely affect the commercial opportunity for the products we are developing. Further, other countries have not, at this time, established criteria for review and approval of these types of products outside their normal review process, i.e., there is no Animal Rule equivalent, and consequently there can be no assurance that we will be able to make a submission for marketing approval in foreign countries based on such animal data.

Additionally, few facilities in the United States and internationally have the capability to test animals with anthrax or ricin, or otherwise assist us in qualifying the requisite animal models. We have to compete with other biodefense companies for access to this limited pool of highly specialized resources. We therefore may not be able to secure contracts to conduct the testing in a predictable timeframe or at all.

We are dependent on government funding, which is inherently uncertain, for the success of our biodefense operations.

We are subject to risks specifically associated with operating in the biodefense industry, which is a new and unproven business area. We do not anticipate that a significant commercial market will develop for our biodefense products. Because we anticipate that the principal potential purchasers of these products, as well as potential sources of research and development funds, will be the U.S. government and governmental agencies, the success of our biodefense division will be dependent in large part upon government spending decisions. The funding of government programs is dependent on budgetary limitations, congressional appropriations and administrative allotment of funds, all of which are inherently uncertain and may be affected by changes in U.S. government policies resulting from various political and military developments. Our receipt of government funding is also dependent on our ability to adhere to the terms and provisions of the original grant documents and other regulations. We can provide no assurance that we will receive or continue to receive funding for grants we have been awarded. The loss of government funds could have a material adverse effect on our ability to progress our biodefense business.

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If the parties we depend on for supplying our drug substance raw materials and certain manufacturing-related services do not timely supply these products and services, it may delay or impair our ability to develop, manufacture and market our products. We do not have or anticipate having internal manufacturing capabilities.

We rely on suppliers for our drug substance raw materials and third parties for certain manufacturing-related services to produce material that meets appropriate content, quality and stability standards, which material will be used in clinical trials of our products and, after approval, for commercial distribution. To succeed, clinical trials require adequate supplies of drug substance and drug product, which may be difficult or uneconomical to procure or manufacture. We and our suppliers and vendors may not be able to (i) produce our drug substance or drug product to appropriate standards for use in clinical studies, (ii) perform under any definitive manufacturing, supply or service agreements with us or (iii) remain in business for a sufficient time to be able to develop, produce, secure regulatory approval of and market our product candidates. If we do not maintain important manufacturing and service relationships, we may fail to find a replacement supplier or required vendor or develop our own manufacturing capabilities which could delay or impair our ability to obtain regulatory approval for our products and substantially increase our costs or deplete profit margins, if any. If we do find replacement manufacturers and vendors, we may not be able to enter into agreements with them on terms and conditions favorable to us and, there could be a substantial delay before a new facility could be qualified and registered with the FDA and foreign regulatory authorities.

We rely on third parties for pre-clinical and clinical trials of our product candidates and, in some cases, to maintain regulatory files for our product candidates. If we are not able to maintain or secure agreements with such third parties on acceptable terms, if these third parties do not perform their services as required, or if these third parties fail to timely transfer any regulatory information held by them to us, we may not be able to obtain regulatory approval for, or commercialize, our product candidates.

We rely on academic institutions, hospitals, clinics and other third-party collaborators for preclinical and clinical trials of our product candidates. Although we monitor, support, and/or oversee our pre-clinical and clinical trials, because we do not conduct these trials ourselves, we have less control over the timing and cost of these studies and the ability to recruit trial subjects than if we conducted these trials wholly by ourselves. If we are unable to maintain or enter into agreements with these third parties on acceptable terms, or if any such engagement is terminated, we may be unable to enroll patients on a timely basis or otherwise conduct our trials in the manner we anticipate. In addition, there is no guarantee that these third parties will devote adequate time and resources to our studies or perform as required by a contract or in accordance with regulatory requirements, including maintenance of clinical trial information regarding our product candidates. If these third parties fail to meet expected deadlines, fail to timely transfer to us any regulatory information, fail to adhere to protocols or fail to act in accordance with regulatory requirements or our agreements with them, or if they otherwise perform in a substandard manner or in a way that compromises the quality or accuracy of their activities or the data they obtain, then preclinical and/or clinical trials of our product candidates may be extended, delayed or terminated, or our data may be rejected by the FDA or regulatory agencies.

The manufacturing of our products is a highly exacting process, and if we or one of our materials suppliers encounter problems manufacturing our products, our business could suffer.

The FDA and foreign regulators require manufacturers to register manufacturing facilities. The FDA and foreign regulators also inspect these facilities to confirm compliance with current Good Manufacturing Practice (“cGMP”) or similar requirements that the FDA or foreign regulators establish. We, or our materials suppliers, may face manufacturing or quality control problems causing product production and shipment delays or a situation where we or the supplier may not be able to maintain compliance with the FDA’s cGMP requirements, or those of foreign regulators, necessary to continue manufacturing our drug substance. Any failure to comply with cGMP requirements or other FDA or foreign regulatory requirements could adversely affect our clinical research activities and our ability to market and develop our products.

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We may use our financial and human resources to pursue a particular research program or product candidate and fail to capitalize on programs or product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and human resources, we are currently focusing on the regulatory approval of certain product candidates. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on existing and future product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through strategic alliance, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate, or we may allocate internal resources to a product candidate in an area in which it would have been more advantageous to enter into a partnering arrangement.

Even if approved, our products will be subject to extensive post-approval regulation.

Once a product is approved, numerous post-approval requirements apply. Among other things, the holder of an approved New Drug Application ("NDA") is subject to periodic and other FDA monitoring and reporting obligations, including obligations to monitor and report adverse events and instances of the failure of a product to meet the specifications in the NDA. Application holders must submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling, or manufacturing process. Application holders must also submit advertising and other promotional material to the FDA and report on ongoing clinical trials.

Depending on the circumstances, failure to meet these post-approval requirements can result in criminal prosecution, fines, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, or refusal to allow us to enter into supply contracts, including government contracts. In addition, even if we comply with FDA and other requirements, new information regarding the safety or effectiveness of a product could lead the FDA to modify or withdraw product approval.

Even if we obtain regulatory approval to market our product candidates, our product candidates may not be accepted by the market.

Even if the FDA approves one or more of our product candidates, physicians and patients may not accept it or use it. Even if physicians and patients would like to use our products, our products may not gain market acceptance among healthcare payors such as managed care formularies, insurance companies or government programs such as Medicare

or Medicaid. Acceptance and use of our products will depend upon a number of factors including: perceptions by members of the health care community, including physicians, about the safety and effectiveness of our drug or device product; cost-effectiveness of our product relative to competing products; availability of reimbursement for our product from government or other healthcare payers; and effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any.

The degree of market acceptance of any product that we develop will depend on a number of factors, including:

- cost-effectiveness;
- the safety and effectiveness of our products, including any significant potential side effects, as compared to alternative products or treatment methods;
- the timing of market entry as compared to competitive products;
- the rate of adoption of our products by doctors and nurses;
- product labeling or product insert required by the FDA for each of our products;

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reimbursement policies of government and third-party payors;

effectiveness of our sales, marketing and distribution capabilities and the effectiveness of such capabilities of our collaborative partners, if any; and

unfavorable publicity concerning our products or any similar products.

Our product candidates, if successfully developed, will compete with a number of products manufactured and marketed by major pharmaceutical companies, biotechnology companies and manufacturers of generic drugs. Our products may also compete with new products currently under development by others. Physicians, patients, third-party payors and the medical community may not accept and utilize any of our product candidates. If our products do not achieve market acceptance, we will not be able to generate significant revenues or become profitable.

Because we expect sales of our current product candidates, if approved, to generate substantially all of our product revenues for the foreseeable future, the failure of these products to find market acceptance would harm our business and could require us to seek additional financing.

We do not have extensive sales and marketing experience and our lack of experience may restrict our success in commercializing some of our product candidates.

We do not have extensive experience in marketing or selling pharmaceutical products whether in the U.S. or internationally. To obtain the expertise necessary to successfully market and sell any of our products, the development of our own commercial infrastructure and/or collaborative commercial arrangements and partnerships will be required. Our ability to make that investment and also execute our current operating plan is dependent on numerous factors, including, the performance of third party collaborators with whom we may contract.

Our products, if approved, may not be commercially viable due to change in health care practice and third party reimbursement limitations.

Recent initiatives to reduce the federal deficit and to change health care delivery are increasing cost-containment efforts. We anticipate that Congress, state legislatures and the private sector will continue to review and assess alternative benefits, controls on health care spending through limitations on the growth of private health insurance premiums and Medicare and Medicaid spending, price controls on pharmaceuticals, and other fundamental changes to the health care delivery system. Any changes of this type could negatively impact the commercial viability of our products, if approved. Our ability to successfully commercialize our product candidates, if they are approved, will depend in part on the extent to which appropriate reimbursement codes and authorized cost reimbursement levels of these products and related treatment are obtained from governmental authorities, private health insurers and other organizations, such as health maintenance organizations. In the absence of national Medicare coverage determination,

local contractors that administer the Medicare program may make their own coverage decisions. Any of our product candidates, if approved and when commercially available, may not be included within the then current Medicare coverage determination or the coverage determination of state Medicaid programs, private insurance companies or other health care providers. In addition, third-party payers are increasingly challenging the necessity and prices charged for medical products, treatments and services.

Our product candidates may cause serious adverse events or undesirable side effects which may delay or prevent marketing approval, or, if approval is received, require them to be taken off the market, require them to include safety warnings or otherwise limit their sales.

Serious adverse events or undesirable side effects from any of our product candidates could arise either during clinical development or, if approved, after the approved product has been marketed. The results of future clinical trials may show that our product candidates cause serious adverse events or undesirable side effects, which could interrupt, delay or halt clinical trials, resulting in delay of, or failure to obtain, marketing approval from the FDA and other regulatory authorities.

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If any of our product candidates cause serious adverse events or undesirable side effects:

- regulatory authorities may impose a clinical hold which could result in substantial delays and adversely impact our ability to continue development of the product;
- regulatory authorities may require the addition of labeling statements, specific warnings, a contraindication or field alerts to physicians and pharmacies;
- we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product;
- we may be required to implement a risk minimization action plan, which could result in substantial cost increases and have a negative impact on our ability to commercialize the product;
- we may be required to limit the patients who can receive the product;
- we may be subject to limitations on how we promote the product;
- sales of the product may decrease significantly;
- regulatory authorities may require us to take our approved product off the market;
- we may be subject to litigation or product liability claims; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenues from the sale of our products.

If we fail to obtain or maintain orphan drug exclusivity for our product candidates, our competitors may sell products to treat the same conditions and our revenue will be reduced.

Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is intended to treat a rare disease or condition, defined as a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the European Union, the European Medicines Agency's Committee for Orphan Medicinal Products grants orphan drug designation to promote the development of products that are intended for the diagnosis, prevention, or treatment of a life-threatening or chronically debilitating condition affecting not more than five in 10,000 persons in the European Union. Additionally, designation is granted for products intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating or serious and chronic condition when,

without incentives, it is unlikely that sales of the drug in the European Union would be sufficient to justify the necessary investment in developing the drug or biological product or where there is no satisfactory method of diagnosis, prevention, or treatment, or, if such a method exists, the medicine must be of significant benefit to those affected by the condition.

In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user-fee waivers. In addition, if a product receives the first FDA approval for the indication for which it has orphan designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority over the product with orphan exclusivity or where the manufacturer is unable to assure sufficient product quantity. In the European Union, orphan drug designation entitles a party to financial incentives such as reduction of fees or fee waivers and ten years of market exclusivity following drug or biological product approval. This period may be reduced to six years if the orphan drug designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity.

Even though we have orphan drug designation for SGX301 in the United States and Europe, and SGX203, RiVax® and OrbeShield® in the United States, we may not be the first to obtain marketing approval for any particular orphan indication due to the uncertainties associated with developing drugs or biologic products. Further, even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties can be approved for the same condition. Absent patent or other intellectual property protection, even after an orphan drug is approved, the FDA or European Medicines Agency may subsequently approve the same drug with the same active moiety for the same condition if the FDA or European Medicines Agency concludes that the later drug is safer, more effective, or makes a major contribution to patient care.

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Federal and/or state health care reform initiatives could negatively affect our business.

The availability of reimbursement by governmental and other third-party payers affects the market for any pharmaceutical product. These third-party payers continually attempt to contain or reduce the costs of healthcare. There have been a number of legislative and regulatory proposals to change the healthcare system and further proposals are likely. Medicare's policies may decrease the market for our products. Significant uncertainty exists with respect to the reimbursement status of newly approved healthcare products.

In addition, third-party payers are increasingly challenging the price and cost-effectiveness of medical products and services. Once approved, we might not be able to sell our products profitably or recoup the value of our investment in product development if reimbursement is unavailable or limited in scope, particularly for product candidates addressing small patient populations. On July 15, 2008, the Medicare Improvements for Patients and Providers Act of 2008 became law with a number of Medicare and Medicaid reforms to establish a bundled Medicare payment rate that includes services and drug/labs that were separately billed at that time. Bundling initiatives that have been implemented in other healthcare settings have occasionally resulted in lower utilization of services that had not previously been a part of the bundled payment.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. We expect that there will continue to be a number of U.S. federal and state proposals to implement governmental pricing controls. While we cannot predict whether such legislative or regulatory proposals will be adopted, the adoption of such proposals could have a material adverse effect on our business, financial condition and profitability.

We may not be able to retain rights licensed to us by third parties to commercialize key products or to develop the third party relationships we need to develop, manufacture and market our products.

We currently rely on license agreements from New York University, Yeda Research and Development Company Ltd., the University of Texas Southwestern Medical Center, the University of British Columbia, Harvard University, the University of Colorado, and George B. McDonald, MD for the rights to commercialize key product candidates. We may not be able to retain the rights granted under these agreements or negotiate additional agreements on reasonable terms, if at all. Our existing license agreements impose, and we expect that future license agreements will impose, various diligence, milestone payment, royalty, and other obligations on us. If we fail to comply with our obligations under these agreements, or we are subject to a bankruptcy, we may be required to make certain payments to the licensor, we may lose the exclusivity of our license, or the licensor may have the right to terminate the license, in which event we would not be able to develop or market products covered by the license. Additionally, the milestone and other payments associated with these licenses will make it less profitable for us to develop our drug candidates. See “Business - Patents and Other Proprietary Rights” for a description of our license agreements.

Licensing of intellectual property is of critical importance to our business and involves complex legal, business, and scientific issues. Disputes may arise regarding intellectual property subject to a licensing agreement, including but not limited to:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our collaborators; and
- the priority of invention of patented technology.

If disputes over intellectual property and other rights that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

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Additionally, the research resulting in certain of our licensed patent rights and technology was funded by the U.S. government. As a result, the government may have certain rights, or march-in rights, to such patent rights and technology. When new technologies are developed with government funding, the government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to use the invention for non-commercial purposes. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations or to give preference to U.S. industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any exercise by the government of such rights could harm our competitive position, business, financial condition, results of operations and prospects.

Furthermore, we currently have very limited product development capabilities and no manufacturing, marketing or sales capabilities. For us to research, develop and test our product candidates, we need to contract or partner with outside researchers, in most cases with or through those parties that did the original research and from whom we have licensed the technologies. If products are successfully developed and approved for commercialization, then we will need to enter into additional collaboration and other agreements with third parties to manufacture and market our products. We may not be able to induce the third parties to enter into these agreements, and, even if we are able to do so, the terms of these agreements may not be favorable to us. Our inability to enter into these agreements could delay or preclude the development, manufacture and/or marketing of some of our product candidates or could significantly increase the costs of doing so. In the future, we may grant to our development partners rights to license and commercialize pharmaceutical and related products developed under the agreements with them, and these rights may limit our flexibility in considering alternatives for the commercialization of these products. Furthermore, third-party manufacturers or suppliers may not be able to meet our needs with respect to timing, quantity and quality for the products.

Additionally, if we do not enter into relationships with additional third parties for the marketing of our products, if and when they are approved and ready for commercialization, we would have to build our own sales force or enter into commercialization agreements with other companies. Development of an effective sales force in any part of the world would require significant financial resources, time and expertise. We may not be able to obtain the financing necessary to establish a sales force in a timely or cost effective manner, if at all, and any sales force we are able to establish may not be capable of generating demand for our product candidates, if they are approved.

We may suffer product and other liability claims; we maintain only limited product liability insurance, which may not be sufficient.

The clinical testing, manufacture and sale of our products involves an inherent risk that human subjects in clinical testing or consumers of our products may suffer serious bodily injury or death due to side effects, allergic reactions or other unintended negative reactions to our products. As a result, product and other liability claims may be brought against us. We currently have clinical trial and product liability insurance with limits of liability of $10 million, which may not be sufficient to cover our potential liabilities. Because liability insurance is expensive and difficult to obtain,

we may not be able to maintain existing insurance or obtain additional liability insurance on acceptable terms or with adequate coverage against potential liabilities. Furthermore, if any claims are brought against us, even if we are fully covered by insurance, we may suffer harm such as adverse publicity.

We may use hazardous chemicals in our business. Potential claims relating to improper handling, storage or disposal of these chemicals could affect us and be time consuming and costly.

Our research and development processes and/or those of our third party contractors involve the controlled use of hazardous materials and chemicals. These hazardous chemicals are reagents and solvents typically found in a chemistry laboratory. Our operations also may produce hazardous waste products. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of hazardous materials. While we attempt to comply with all environmental laws and regulations, including those relating to the outsourcing of the disposal of all hazardous chemicals and waste products, we cannot eliminate the risk of contamination from or discharge of hazardous materials and any resultant injury. In the event of such an accident, we could be held liable for any resulting damages and any liability could materially adversely affect our business, financial condition and results of operations.

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Compliance with environmental laws and regulations may be expensive. Current or future environmental regulations may impair our research, development or production efforts. We might have to pay civil damages in the event of an improper or unauthorized release of, or exposure of individuals to, hazardous materials. We are not insured against these environmental risks.

We may agree to indemnify our collaborators in some circumstances against damages and other liabilities arising out of development activities or products produced in connection with these collaborations.

In addition, the federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous or radioactive materials and waste products may require us to incur substantial compliance costs that could materially adversely affect our business, financial condition and results of operations.

We may not be able to compete with our larger and better financed competitors in the biotechnology industry.

The biotechnology industry is intensely competitive, subject to rapid change and sensitive to new product introductions or enhancements. Most of our existing competitors have greater financial resources, larger technical staffs, and larger research budgets than we have, as well as greater experience in developing products and conducting clinical trials. Our competition is particularly intense in the gastroenterology and transplant areas and is also intense in the therapeutic area of inflammatory bowel diseases. We face intense competition in the biodefense area from various public and private companies and universities as well as governmental agencies, such as the U.S. Army, which may have their own proprietary technologies that may directly compete with our technologies. In addition, there may be other companies that are currently developing competitive technologies and products or that may in the future develop technologies and products that are comparable or superior to our technologies and products. We may not be able to compete with our existing and future competitors, which could lead to the failure of our business.

Additionally, if a competitor receives FDA approval before we do for a drug that is similar to one of our product candidates, FDA approval for our product candidate may be precluded or delayed due to periods of non-patent exclusivity and/or the listing with the FDA by the competitor of patents covering its newly-approved drug product. Periods of non-patent exclusivity for new versions of existing drugs such as our current product candidates can extend up to three and one-half years. See “Business - The Drug Approval Process.”

These competitive factors could require us to conduct substantial new research and development activities to establish new product targets, which would be costly and time consuming. These activities would adversely affect our ability to commercialize products and achieve revenue and profits.

Competition and technological change may make our product candidates and technologies less attractive or obsolete.

We compete with established pharmaceutical and biotechnology companies that are pursuing other forms of treatment for the same indications we are pursuing and that have greater financial and other resources. Other companies may succeed in developing products earlier than us, obtaining FDA approval for products more rapidly, or developing products that are more effective than our product candidates. Research and development by others may render our technology or product candidates obsolete or noncompetitive, or result in treatments or cures superior to any therapy we develop. We face competition from companies that internally develop competing technology or acquire competing technology from universities and other research institutions. As these companies develop their technologies, they may develop competitive positions that may prevent, make futile, or limit our product commercialization efforts, which would result in a decrease in the revenue we would be able to derive from the sale of any products.

There can be no assurance that any of our product candidates will be accepted by the marketplace as readily as these or other competing treatments. Furthermore, if our competitors' products are approved before ours, it could be more difficult for us to obtain approval from the FDA. Even if our products are successfully developed and approved for use by all governing regulatory bodies, there can be no assurance that physicians and patients will accept our product(s) as a treatment of choice.

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Furthermore, the pharmaceutical research industry is diverse, complex, and rapidly changing. By its nature, the business risks associated therewith are numerous and significant. The effects of competition, intellectual property disputes, market acceptance, and FDA regulations preclude us from forecasting revenues or income with certainty or even confidence.

Our business could be harmed if we fail to retain our current personnel or if they are unable to effectively run our business.

We currently have 19 employees and we depend upon these employees, in particular Dr. Christopher Schaber, our President and Chief Executive Officer, to manage the day-to-day activities of our business. Because we have such limited personnel, the loss of any of them or our inability to attract and retain other qualified employees in a timely manner would likely have a negative impact on our operations. We may be unable to effectively manage and operate our business, and our business may suffer, if we lose the services of our employees.

Instability and volatility in the financial markets could have a negative impact on our business, financial condition, results of operations, and cash flows.

During recent years, there has been substantial volatility in financial markets due at least in part to the uncertainty with regard to the global economic environment. In addition, there has been substantial uncertainty in the capital markets and access to additional financing is uncertain. Moreover, customer spending habits may be adversely affected by current and future economic conditions. These conditions could have an adverse effect on our industry and business, including our financial condition, results of operations, and cash flows.

To the extent that we do not generate sufficient cash from operations, we may need to issue stock or incur indebtedness to finance our plans for growth. Recent turmoil in the credit markets and the potential impact on the liquidity of major financial institutions may have an adverse effect on our ability to fund our business strategy through borrowings, under either existing or newly created instruments in the public or private markets on terms we believe to be reasonable, if at all.

We may not be able to utilize all of our net operating loss carryforwards.

The State of New Jersey’s Technology Business Tax Certificate Program allows certain high technology and biotechnology companies to sell unused net operating loss (“NOL”) carryforwards to other New Jersey-based corporate taxpayers. In accordance with this program, during the year ended December 31, 2016, we sold New Jersey NOL

carryforwards, resulting in the recognition of $530,143 of income tax benefit. If there is an unfavorable change in the State of New Jersey's Technology Business Tax Certificate Program (whether as a result of a change in law, policy or otherwise) that terminates the program or eliminates or reduces our ability to use or sell our NOL carryforwards, our cash taxes may increase which may have an adverse effect on our financial condition.

Risks Related to our Intellectual Property

We may be unable to commercialize our products if we are unable to protect our proprietary rights, and we may be liable for significant costs and damages if we face a claim of intellectual property infringement by a third party.

Our near and long term prospects depend in part on our ability to obtain and maintain patents, protect trade secrets and operate without infringing upon the proprietary rights of others. In the absence of patent and trade secret protection, competitors may adversely affect our business by independently developing and marketing substantially equivalent or superior products and technology, possibly at lower prices. We could also incur substantial costs in litigation and suffer diversion of attention of technical and management personnel if we are required to defend ourselves in intellectual property infringement suits brought by third parties, with or without merit, or if we are required to initiate litigation against others to protect or assert our intellectual property rights. Moreover, any such litigation may not be resolved in our favor.

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Although we and our licensors have filed various patent applications covering the uses of our product candidates, patents may not be issued from the patent applications already filed or from applications that we might file in the future. Moreover, the patent position of companies in the pharmaceutical industry generally involves complex legal and factual questions, and recently has been the subject of much litigation. Any patents we own or license, now or in the future, may be challenged, invalidated or circumvented. To date, no consistent policy has been developed in the U.S. Patent and Trademark Office (the "PTO") regarding the breadth of claims allowed in biotechnology patents.

In addition, because patent applications in the U.S. are maintained in secrecy until patent applications publish or patents issue, and because publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that we and our licensors are the first creators of inventions covered by any licensed patent applications or patents or that we or they are the first to file. The PTO may commence interference proceedings involving patents or patent applications, in which the question of first inventorship is contested. Accordingly, the patents owned or licensed to us may not be valid or may not afford us protection against competitors with similar technology, and the patent applications licensed to us may not result in the issuance of patents.

It is also possible that our owned and licensed technologies may infringe on patents or other rights owned by others, and licenses to which may not be available to us. We may be unable to obtain a license under such patent on terms favorable to us, if at all. We may have to alter our products or processes, pay licensing fees or cease activities altogether because of patent rights of third parties.

In addition to the products for which we have patents or have filed patent applications, we rely upon unpatented proprietary technology and may not be able to meaningfully protect our rights with regard to that unpatented proprietary technology. Furthermore, to the extent that consultants, key employees or other third parties apply technological information developed by them or by others to any of our proposed projects, disputes may arise as to the proprietary rights to this information, which may not be resolved in our favor.

We may be involved in lawsuits to protect or enforce our patents, which could be expensive and time consuming.

The pharmaceutical industry has been characterized by extensive litigation regarding patents and other intellectual property rights, and companies have employed intellectual property litigation to gain a competitive advantage. We may become subject to infringement claims or litigation arising out of patents and pending applications of our competitors, or additional interference proceedings declared by the PTO to determine the priority of inventions. The defense and prosecution of intellectual property suits, PTO proceedings, and related legal and administrative proceedings are costly and time-consuming to pursue, and their outcome is uncertain. Litigation may be necessary to enforce our issued patents, to protect our trade secrets and know-how, or to determine the enforceability, scope, and validity of the proprietary rights of others. An adverse determination in litigation or interference proceedings to which we may become a party could subject us to significant liabilities, require us to obtain licenses from third parties, or restrict or prevent us from selling our products in certain markets. Although patent and intellectual property disputes

might be settled through licensing or similar arrangements, the costs associated with such arrangements may be substantial and could include our paying large fixed payments and ongoing royalties. Furthermore, the necessary licenses may not be available on satisfactory terms or at all.

Competitors may infringe our patents, and we may file infringement claims to counter infringement or unauthorized use. This can be expensive, particularly for a company of our size, and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover its technology. An adverse determination of any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly.

Also, a third party may assert that our patents are invalid and/or unenforceable. There are no unresolved communications, allegations, complaints or threats of litigation related to the possibility that our patents are invalid or unenforceable. Any litigation or claims against us, whether or not merited, may result in substantial costs, place a significant strain on our financial resources, divert the attention of management and harm our reputation. An adverse decision in litigation could result in inadequate protection for our product candidates and/or reduce the value of any license agreements we have with third parties.

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Interference proceedings brought before the PTO may be necessary to determine priority of invention with respect to our patents or patent applications. During an interference proceeding, it may be determined that we do not have priority of invention for one or more aspects in our patents or patent applications and could result in the invalidation in part or whole of a patent or could put a patent application at risk of not issuing. Even if successful, an interference proceeding may result in substantial costs and distraction to our management.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation or interference proceedings, there is a risk that some of our confidential information could be compromised by disclosure. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If investors perceive these results to be negative, the price of our common stock could be adversely affected.

If we infringe the rights of third parties we could be prevented from selling products, forced to pay damages, and defend against litigation.

If our products, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we may have to: obtain licenses, which may not be available on commercially reasonable terms, if at all; abandon an infringing product candidate; redesign our products or processes to avoid infringement; stop using the subject matter claimed in the patents held by others; pay damages; and/or defend litigation or administrative proceedings which may be costly whether we win or lose, and which could result in a substantial diversion of our financial and management resources.

Risks Related to our Securities

The price of our common stock and warrants may be highly volatile.

The market price of our securities, like that of many other research and development public pharmaceutical and biotechnology companies, has been highly volatile and the price of our common stock and warrants may be volatile in the future due to a wide variety of factors, including:

- announcements by us or others of results of pre-clinical testing and clinical trials;
- announcements of technological innovations, more important bio-threats or new commercial therapeutic products by us, our collaborative partners or our present or potential competitors;

our quarterly operating results and performance;

developments or disputes concerning patents or other proprietary rights;

acquisitions;

litigation and government proceedings;

adverse legislation;

changes in government regulations;

our available working capital;

economic and other external factors; and

general market conditions.

Since January 1, 2016, the closing stock price (split adjusted) of our common stock has fluctuated between a high of $11.90 per share to a low of $1.98 per share. On April 20, 2017, the last quoted sale price of our common stock as reported on The Nasdaq Capital Market was $3.59 per share. Since December 13, 2016, the date of the initial listing of the 2016 Warrants, the closing price of our common stock warrant has fluctuated between a high of $0.90 per warrant to a low of $0.32 per warrant. The fluctuation in the price of our common stock and warrants has sometimes been unrelated or disproportionate to our operating performance. In addition, potential dilutive effects of future sales of shares of common stock and warrants by the Company, as well as potential sale of common stock by the holders of warrants and options, could have an adverse effect on the market price of our shares.

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The warrants do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price for a limited period of time. Specifically, commencing on the date of issuance, holders of the warrants may exercise their right to acquire the common stock and pay an exercise price of $3.95 per share, prior to five years from the date of issuance, after which date any unexercised warrants will expire and have no further value.

Shareholders may suffer substantial dilution related to issued stock warrants and options.

As of December 31, 2016, we had a number of agreements or obligations that may result in dilution to investors. These include:

- warrants to purchase a total of approximately 2,853,575 shares of our common stock at a current weighted average exercise price of approximately $4.13; and

- options to purchase approximately 330,605 shares of our common stock at a current weighted average exercise price of approximately $17.07.

We also have an incentive compensation plan for our management, employees and consultants. We have granted, and expect to grant in the future, options to purchase shares of our common stock to our directors, employees and consultants. To the extent that warrants or options are exercised, our stockholders will experience dilution and our stock price may decrease.

Additionally, the sale, or even the possibility of the sale, of the shares of common stock underlying these warrants and options could have an adverse effect on the market price for our securities or on our ability to obtain future financing.

Anti-takeover provisions in our stockholder rights plan and under Delaware law could make a third party acquisition of the Company difficult.

Our stockholder rights plan contains provisions that could make it more difficult for a third party to acquire us, even if doing so might be deemed beneficial by our stockholders. These provisions could limit the price that investors might be willing to pay in the future for shares of our common stock. We are also subject to certain provisions of Delaware law that could delay, deter or prevent a change in control of the Company. The rights issued pursuant to our stockholder rights plan will become exercisable the tenth day after a person or group announces acquisition of 15% or more of our common stock or commences, or announces an intention to make, a tender or exchange offer the consummation of which would result in ownership by the person or group of 15% or more of our common stock. If

the rights become exercisable, the holders of the rights (other than the person acquiring 15% or more of our common stock) will be entitled to acquire, in exchange for the rights' exercise price, shares of our common stock or shares of any company in which we are merged, with a value equal to twice the rights' exercise price.

Our shares of common stock and warrants are thinly traded, so stockholders may be unable to sell at or near ask prices or at all if they need to sell shares or warrants to raise money or otherwise desire to liquidate their shares.

Our common stock and warrants have from time to time been "thinly-traded," meaning that the number of persons interested in purchasing our common stock or warrants at or near ask prices at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the fact that we are a small company that is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our shares until such time as we become more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give stockholders any assurance that a broader or more active public trading market for our common shares and warrants will develop or be sustained, or that current trading levels will be sustained.

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We do not currently intend to pay dividends on our common stock in the foreseeable future, and consequently, our stockholders' ability to achieve a return on their investment will depend on appreciation in the price of our common stock.

We have never declared or paid cash dividends on our common stock and do not anticipate paying any cash dividends to holders of our common stock in the foreseeable future. Consequently, our stockholders must rely on sales of their common stock and warrants after price appreciation, which may never occur, as the only way to realize any future gains on their investments. There is no guarantee that shares of our common stock or warrants will appreciate in value or even maintain the price at which our stockholders have purchased their shares.

Upon dissolution of the Company, our stockholders may not recoup all or any portion of their investment.

In the event of a liquidation, dissolution or winding-up of the Company, whether voluntary or involuntary, the proceeds and/or assets of the Company remaining after giving effect to such transaction, and the payment of all of our debts and liabilities will be distributed to the holders of common stock on a pro rata basis. There can be no assurance that we will have available assets to pay to the holders of common stock, or any amounts, upon such a liquidation, dissolution or winding-up of the Company. In this event, our stockholders could lose some or all of their investment.

The sale or issuance of our common stock to Lincoln Park may cause dilution and the sale of the shares of common stock acquired by Lincoln Park, or the perception that such sales may occur, could cause the price of our common stock to fall.

On March 22, 2016, we entered into the LP Purchase Agreement with Lincoln Park. Pursuant to the LP Purchase Agreement, Lincoln Park has committed to purchase up to $12 million of our common stock, of which approximately $10.3 million worth of our common stock remains issuable as of the date of this filing. Concurrently with the execution of the LP Purchase Agreement, we issued 10,000 shares of our common stock to Lincoln Park as a partial fee for its commitment to purchase shares of our common stock under the LP Purchase Agreement. From March 22, 2016 through the date of this filing, we sold 260,000 shares to Lincoln Park and issued 7,135 additional shares to Lincoln Park as additional commitment shares under the LP Purchase Agreement and received proceeds of $1,712,320. The shares that may be sold pursuant to the LP Purchase Agreement may be sold by us to Lincoln Park at our sole discretion from time to time over the remaining term of approximately 24 months from the date of the filing of this report, provided the registration statement registering the resale of shares sold to Lincoln Park under the LP Purchase Agreement remains effective. The purchase price for the shares that we may sell to Lincoln Park under the LP Purchase Agreement will fluctuate based on the price of our common stock. We have the right to control the timing and amount of any sales of our shares to Lincoln Park, except that, pursuant to the terms of our agreements with Lincoln Park, we would be unable to sell shares to Lincoln Park that would cause Lincoln Park to beneficially own more than 4.99% of our issued and outstanding common stock.

Depending on market liquidity at the time, sales of shares under the LP Purchase Agreement may cause the trading price of our common stock to fall. Additionally, further sales of our common stock, if any, to Lincoln Park under the LP Purchase Agreement will depend upon market conditions and other factors to be determined by us. Lincoln Park may ultimately purchase all, some or none of the shares of our common stock that may be sold pursuant to the LP Purchase Agreement and, after it has acquired shares, Lincoln Park may sell all, some or none of those shares. Therefore, sales to Lincoln Park by us could result in substantial dilution to the interests of other holders of our common stock. Additionally, the sale of a substantial number of shares of our common stock to Lincoln Park, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

The issuance of our common stock pursuant to the terms of the asset purchase agreement with Hy Biopharma Inc. may cause dilution and the issuance of such shares of common stock, or the perception that such issuances may occur, could cause the price of our common stock to fall.

On April 1, 2014, we entered into an option agreement pursuant to which Hy Biopharma Inc. granted us an option to purchase certain assets, properties and rights (the “Hypericin Assets”) related to the development of Hy Biopharma’s synthetic hypericin product candidate for the treatment of CTCL, which we refer to as SGX301, from Hy Biopharma. In exchange for the option, we paid $50,000 in cash and issued 4,307 shares of common stock in the aggregate to Hy Biopharma and its assignees. We subsequently exercised the option, and on September 3, 2014, we entered into an asset purchase agreement with Hy Biopharma, pursuant to which we purchased the Hypericin Assets. Pursuant to the purchase agreement, we paid $275,000 in cash and issued 184,912 shares of common stock in the aggregate to Hy Biopharma and its assignees, and the licensors of the license agreement acquired from Hy Biopharma, and may issue up to an aggregate of $10 million worth of our common stock (subject to a cap equal to 19.99% of our issued and outstanding common stock) in the aggregate upon attainment of specified milestones. The next milestone payment will be payable if the Phase 3 clinical trial of SGX301 is successful in demonstrating efficacy and safety in the CTCL patient population. Also on September 3, 2014, we entered into the Registration Rights Agreement with Hy Biopharma, pursuant to which we have filed a registration statement with the SEC.

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The number of shares that we may issue under the purchase agreement will fluctuate based on the market price of our common stock. Depending on market liquidity at the time, the issuance of such shares may cause the trading price of our common stock to fall.

We may ultimately issue all, some or none of the additional shares of our common stock that may be issued pursuant to the purchase agreement. We are required to register any shares issued pursuant to the purchase agreement for resale under the Securities Act of 1993, as amended. After any such shares are registered, the holders will be able to sell all, some or none of those shares. Therefore, issuances by us under the purchase agreement could result in substantial dilution to the interests of other holders of our common stock. Additionally, the issuance of a substantial number of shares of our common stock pursuant to the purchase agreement, or the anticipation of such issuances, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

USE OF PROCEEDS

We will not receive any proceeds upon the sale of shares by Lincoln Park in this offering; however, we may receive gross proceeds of up to an additional $10,287,680 under the LP Purchase Agreement over the balance of the 36-month term, assuming that we sell the full amount of our common stock that we have the right, but not the obligation, to sell to Lincoln Park under that agreement. Additionally, we will receive proceeds from the sale of common stock upon the exercise of the 2013 Warrants, 2014 Warrants and 2016 Warrants as exercised, other than pursuant to any applicable cashless exercise provisions of the warrants. See “Plan of Distribution” elsewhere in this prospectus for more information.

We will use the net proceeds from this offering to further develop our products and product candidates and for working capital and other general corporate purposes. We will have broad discretion in determining how we will allocate the proceeds from any sales to Lincoln Park or the exercise of the warrants.

DIVIDEND POLICY

We have never declared nor paid any cash dividends, and currently intend to retain all our cash and any earnings for use in our business and, therefore, do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of our board of directors and will be dependent upon our consolidated financial condition, results of operations, capital requirements and such other factors as our board of directors deems relevant.

DETERMINATION OF OFFERING PRICE

Lincoln Park will offer common stock at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The offering price of our common stock to be sold by Lincoln Park does not necessarily bear any relationship to our book value, assets, past operating results, financial condition or any other established criteria of value.

In addition, there is no assurance that our common stock will trade at market prices in excess of the offering price as prices for common stock in any public market will be determined in the marketplace and may be influenced by many factors, including the depth and liquidity.

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DILUTION

If you invest in our securities, your interest will be immediately and substantially diluted to the extent of the difference between the public offering price per share of our common stock and the pro forma net tangible book value per share of our common stock after giving effect to this offering.

Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of common stock in this offering and the pro forma net tangible book value per share of common stock immediately after the completion of this offering. Our net tangible book value per share as of December 31, 2016 was $7,270,620 or $1.33 per share of common stock. After giving effect to (a) the exercise of the warrants for the underlying 2,775,587 shares of common stock in this offering for an aggregate exercise price of $11,344,243 and (b) our assumed receipt of $861,600 in estimated net proceeds from the issuance of 240,000 additional shares of common stock under the LP Purchase Agreement and registered in this offering (assuming a purchase price of $3.59 per share (the closing price of the common stock on April 20, 2017), and the issuance of 42,865 commitment shares for no additional cash consideration, and assuming all such sales and issuances were made on December 31, 2016, our pro forma net tangible book value as of December 31, 2016 would have been $19,476,463, or approximately $2.28 per share of our common stock. This would result in an immediate increase in pro forma net tangible book value to our existing stockholders and to the holders exercising the 2013 Warrants, and an immediate dilution in pro forma net tangible book value to investors purchasing securities in the offering from Lincoln Park and the holders exercising the 2014 Warrants and 2016 Warrants.

The following table illustrates the per share dilution to investors purchasing shares in the offering:

Assumed public offering price per share resold by Lincoln Park (1)		$3.59
Exercise price of 2013 Warrant		0.80
Exercise price of 2014 Warrant		14.80
Exercise price of 2016 Warrant		3.95
Net tangible book value per share as of December 31, 2016	$1.33	
Increase in net tangible book value per share attributable to this offering	$0.95	
Pro forma as adjusted net tangible book value per share after this offering		$2.28
Dilution in net tangible book value per share to investors purchasing from Lincoln Park		$1.31
Increase in net tangible book value per share to investors exercising 2013 Warrant		$1.48
Dilution in net tangible book value per share to investors exercising 2014 Warrant		$12.52
Dilution in net tangible book value per share to investors exercising 2016 Warrant		$1.67

(1) Closing price of the common stock on April 20, 2017.

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THE LINCOLN PARK TRANSACTION

General

On March 22, 2016, we entered into the LP Purchase Agreement and the LP Registration Rights Agreement with Lincoln Park. Pursuant to the terms of the LP Purchase Agreement, Lincoln Park has agreed to purchase from us up to $12 million in the aggregate of our common stock (subject to certain limitations) from time to time over a 36-month period from April 28, 2016. Pursuant to the terms of the LP Registration Rights Agreement, we have filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act the shares that have been or may be issued to Lincoln Park under the LP Purchase Agreement.

We did not have the right to make any further sales to Lincoln Park under the LP Purchase Agreement until the SEC has declared effective the registration statement of which this prospectus forms a part. Thereafter and upon satisfaction of the other conditions set forth in the LP Purchase Agreement, we may, from time to time and at our sole discretion, direct Lincoln Park to purchase shares of our common stock in amounts up to 10,000 shares on any single business day so long as at least one business day has passed since the most recent purchase. We can also increase the amount of our common stock to be purchased under certain circumstances to up to 25,000 shares but not exceeding $750,000 per purchase plus an additional "accelerated amount" under certain circumstances. The purchase price per share is based on the market price of our common stock immediately preceding the time of sale as computed under the LP Purchase Agreement without any fixed discount. We issued 10,000 shares of our stock to Lincoln Park as a commitment fee for entering into the LP Purchase Agreement. From March 22, 2016 through the date of this filing, we sold 260,000 shares to Lincoln Park and issued 7,135 additional shares to Lincoln Park as additional commitment shares under the LP Purchase Agreement and received proceeds of $1,712,320. We are obligated to issue up to an additional 42,865 shares pro rata as Lincoln Park purchases the remaining $10,287,680 of our common stock as directed by us. For example, if we elect, at our sole discretion, to require Lincoln Park to purchase $100,000 of our stock then we would issue 417 shares of the pro rata commitment fee which is the product of $100,000 (the amount we have elected to sell) divided by $10,287,680 (the remaining amount we can sell Lincoln Park under the LP Purchase Agreement multiplied by 42,865 (the total number of remaining pro rata commitment shares). The pro rata commitment shares will only be issued pursuant to this formula as and when we elect at our discretion to sell stock to Lincoln Park. Lincoln Park may not assign or transfer its rights and obligations under the LP Purchase Agreement.

Purchase of Shares Under the LP Purchase Agreement

Under the LP Purchase Agreement, on any business day selected by us, we may direct Lincoln Park to purchase up to 10,000 shares of our common stock on any such business day so long as one business day has passed since the last purchase. On any day that the closing sale price of our common stock is not below (a) $10.00, the purchase amount may be increased, at our sole discretion, to up to 15,000 shares of our common stock per purchase, (b) $15.00, the purchase amount may be increased, at our sole discretion, to up to 20,000 shares of our common stock per purchase

and (c) $20.00, the purchase amount may be increased, at our sole discretion, to up to 25,000 shares of our common stock per purchase, provided in each instance that the amount cannot exceed $750,000 (a “Regular Purchase”). Lincoln Park will not be required to purchase any shares of our common stock if such sale would result in Lincoln Park’s beneficial ownership exceeding 4.99% of the then outstanding shares of our common stock. The purchase price per share for each such Regular Purchase will be equal to the lower of:

the lowest sale price for our common stock on the purchase date of such shares; or

the arithmetic average of the three lowest closing sale prices for our common stock during the 12 consecutive business days ending on the business day immediately preceding the purchase date of such shares.

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In addition to Regular Purchases described above, we may also direct Lincoln Park, on any business day on which we have properly submitted a Regular Purchase notice and the closing price of our common stock is not below $7.50 per share, to purchase an additional amount of our common stock (an "Accelerated Purchase"), not to exceed the lesser of:

- 30% of the aggregate shares of our common stock traded during normal trading hours on the purchase date; and
- three times the number of purchase shares purchased pursuant to the corresponding Regular Purchase.

The purchase price per share for each such Accelerated Purchase will be equal to the lower of:

- 95% of the volume weighted average price during (i) the entire trading day on the purchase date, if the volume of shares of our common stock traded on the purchase date has not exceeded a volume maximum calculated in accordance with the LP Purchase Agreement, or (ii) the portion of the trading day of the purchase date (calculated starting at the beginning of normal trading hours) until such time at which the volume of shares of our common stock traded has exceeded such volume maximum; or
- the closing sale price of our common stock on the purchase date.

In the case of both Regular Purchases and Accelerated Purchases, the purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring during the business days used to compute the purchase price.

Other than as set forth above, there are no trading volume requirements or restrictions under the LP Purchase Agreement, and we will control the timing and amount of any sales of our common stock to Lincoln Park.

Events of Default

Events of default under the LP Purchase Agreement include the following:

- the effectiveness of the registration statement of which this prospectus forms a part lapses for any reason (including, without limitation, the issuance of a stop order), or any required prospectus supplement and accompanying prospectus are unavailable for the resale by Lincoln Park of our common stock offered hereby, and such lapse or

unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period;

suspension by our principal market of our common stock from trading for a period of one business day;

the de-listing of our common stock from the OTCQB operated by the OTC Markets Group, Inc. , provided our common stock is not immediately thereafter trading on the New York Stock Exchange, the NYSE MKT, the NYSE Arca, The NASDAQ Capital Market, The NASDAQ Global Market, The NASDAQ Global Select Market, the OTC Bulletin Board or the OTCQX operated by the OTC Markets Group, Inc. (or nationally recognized successor thereto);

the transfer agent's failure for five business days to issue to Lincoln Park shares of our common stock which Lincoln Park is entitled to receive under the LP Purchase Agreement;

our breach of the representations or warranties or covenants contained in the LP Purchase Agreement or any related agreement which has or which could have a material adverse effect on us subject to a cure period of five business days;

any voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us; or

if at any time we are not eligible to transfer our common stock electronically or a material adverse change in our business, financial condition, operations or prospects has occurred.

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During an event of default, all of which are outside of Lincoln Park's control, shares of our common stock cannot be sold by us or purchased by Lincoln Park under the LP Purchase Agreement.

Our Termination Rights

We have the unconditional right, at any time, for any reason and without any payment or liability to us, to give notice to Lincoln Park to terminate the LP Purchase Agreement. In the event of bankruptcy proceedings by or against us, the LP Purchase Agreement will automatically terminate without action of any party.

No Short-Selling or Hedging by Lincoln Park

Lincoln Park has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our common stock during any time prior to the termination of the LP Purchase Agreement.

No Continuous Offerings

We agreed with Lincoln Park that we will not effect any issuance of shares of our common stock in any "continuous offering" in which we enter into any agreement, including, but not limited to, an equity line of credit or at-the-market offering, whereby we may sell securities at a future determined price until the expiration of the 24-month period following the date of the LP Purchase Agreement. The prohibition on "continuous offerings" does not apply to, and we are not restricted from entering into, the following transactions ("exempt issuances"):

if we issue shares of common stock or options to our employees, officers, directors or vendors pursuant to any stock or option plan duly adopted by our board of directors;

if we issue securities upon the exercise or conversion of any securities that are outstanding on the date of the LP Purchase Agreement;

if we issue securities pursuant to acquisitions or strategic transactions approved by our board of directors, provided that any such issuance is to an operating company or an asset in a business synergistic with our business, and shall not include a transaction primarily for the purpose of raising capital or to an entity whose primary business is investing in securities; or

if we issue common stock in an “at-the-market offering” of our common stock through a registered broker-dealer.

Effect of Performance of the LP Purchase Agreement on Our Stockholders

All shares of common stock registered in this offering are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold over a period of up to 24 months from the date hereof. The sale by Lincoln Park of a significant amount of shares registered in this offering at any given time could cause the market price of our common stock to decline and to be highly volatile. Lincoln Park may ultimately purchase all, some or none of the shares of common stock not yet issued but registered in this offering. If we sell these shares to Lincoln Park, Lincoln Park may sell all, some or none of such shares. Therefore, sales to Lincoln Park by us under the LP Purchase Agreement may result in substantial dilution to the interests of other holders of our common stock. In addition, if we sell a substantial number of shares to Lincoln Park under the LP Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangement with Lincoln Park may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales. However, we have the right to control the timing and amount of any sales of our shares to Lincoln Park and the LP Purchase Agreement may be terminated by us at any time at our discretion without any cost to us.

Pursuant to the terms of the LP Purchase Agreement, we have the right, but not the obligation, to direct Lincoln Park to purchase up to an additional $10,287,680 of our common stock. Depending on the price per share at which we sell our common stock to Lincoln Park, we may be authorized to issue and sell to Lincoln Park under the LP Purchase Agreement more shares of our common stock than are offered under this prospectus. If we choose to do so, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our stockholders. The number of shares ultimately offered for resale by Lincoln Park under this prospectus is dependent upon the number of shares we direct Lincoln Park to purchase under the LP Purchase Agreement.

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Of the shares being registered, 277,135 shares have already been issued to Lincoln Park and 282,865 shares have not been issued and are not outstanding. The following table sets forth the amount of proceeds we would receive from Lincoln Park from the sale of shares (which have not been sold to Lincoln Park) at varying purchase prices:

Assumed Average Purchase Price Per Share		**Number of Registered Shares to be Issued if Full Purchase (1)(2)**	Percentage of Outstanding Shares After Giving Effect to the Issuance to Lincoln Park (3)	Additional Proceeds from the Sale of Registered Shares to Lincoln Park Under the Purchase Agreement
$ 1.50		241,500	4.23 %	$360,000
$ 2.50		242,500	4.24 %	$600,000
$ 3.59	(4)	243,590	4.26 %	$861,600
$ 4.50		244,500	4.28 %	$1,080,000
$ 5.50		245,500	4.29 %	$1,320,000

(1) Although the LP Purchase Agreement provides that we may sell up to an additional $12,000,000 of our common stock to Lincoln Park, we have already sold 260,000 shares and issued 17,135 commitment shares for proceeds of $1,712,320 and we are only registering 560,000 shares under this prospectus, which may or may not cover all the shares we ultimately sell to Lincoln Park under the LP Purchase Agreement, depending on the purchase price per share. As a result, we have included in this column only those shares that we are registering in this offering including the applicable additional commitment shares issuable to Lincoln Park.

(2) The number of registered shares to be issued excludes the 17,135 previously issued commitment shares registered hereunder because no proceeds will be attributable to such commitment shares.

(3) The denominator is based on 5,472,532 shares outstanding as of April 20, 2017, which includes the 260,000 shares already sold to Lincoln Park under the Purchase Agreement and the 17,135 commitment shares already issued to Lincoln Park, and is adjusted to include the number of shares set forth in the adjacent column which we would have sold to Lincoln Park at the applicable assumed average purchase price per share. The numerator is based on the number of shares issuable under the LP Purchase Agreement at the corresponding assumed purchase price set forth in the adjacent column. The number of shares in such column does not include shares that may be issued to Lincoln Park under the LP Purchase Agreement which are not registered in this offering.

(4) The closing price of our common stock on April 20, 2017 was $3.59.

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SELLING STOCKHOLDER

Transaction with Lincoln Park

On March 22, 2016, we entered into a purchase Agreement with Lincoln Park (the "LP Purchase Agreement"), pursuant to which Lincoln Park agreed to purchase from us up to an aggregate of $12 million of our common stock (subject to certain limitations) from time to time over a 36-month period. Also on March 22, 2016, we entered into a Registration Rights Agreement (the "LP Registration Rights Agreement") with Lincoln Park, pursuant to which we filed with the U.S. Securities and Exchange Commission (the "SEC") a registration statement to register for resale under the Securities Act of 1933, as amended (the "Securities Act"), the shares that have been or may be issued to Lincoln Park under the LP Purchase Agreement.

We did not have the right to continue sales to Lincoln Park under the LP Purchase Agreement until the SEC has declared effective the registration statement of which this prospectus forms a part. Thereafter, we may, from time to time and at our sole discretion, direct Lincoln Park to purchase shares of our common stock in amounts up to 10,000 shares on any single business day so long as at least one business day has passed since the most recent purchase. We can also increase the amount of our common stock to be purchased under certain circumstances to up to 25,000 shares but not exceeding $750,000 per purchase plus an additional "accelerated amount" under certain circumstances. Except as described in this prospectus, there are no trading volume requirements or restrictions under the LP Purchase Agreement, and we will control the timing and amount of any sales of our common stock to Lincoln Park. The purchase price of the shares that may be sold to Lincoln Park under the LP Purchase Agreement will be based on the market price of our common stock immediately preceding the time of sale as computed under the LP Purchase Agreement without any fixed discount; provided that in no event will such shares be sold to Lincoln Park where such sale would result in Lincoln Park's beneficial ownership exceeding 4.99% of the then outstanding shares of our common stock. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute such price. We may at any time in our sole discretion terminate the LP Purchase Agreement without fee, penalty or cost upon one business day notice. Lincoln Park may not assign or transfer its rights and obligations under the LP Purchase Agreement.

As of April 20, 2017, there were 5,472,532 shares of our common stock outstanding, of which 4,336,471 shares were held by non-affiliates, including the 277,135 shares that we have already issued to Lincoln Park under the LP Purchase Agreement. Although the LP Purchase Agreement provides that we may sell up to $12,000,000 of our common stock to Lincoln Park only 560,000 shares of our common stock are being offered under this prospectus, which represents (i) 17,135 shares that we have issued to Lincoln Park as a commitment fee, (ii) 260,000 shares which have be sold to Lincoln Park under the LP Purchase Agreement for an aggregate amount of $1,712,320, (iii) 240,000 shares which may be sold to Lincoln Park in the future under the LP Purchase Agreement and (iv) 42,865 shares that we are required to issue proportionally in the future, as an additional commitment fee, if and when we sell shares to Lincoln Park under the LP Purchase Agreement. The additional commitment shares are issued pro rata as Lincoln Park purchases up to the remaining $10,287,680 of our common stock as directed by us. For example, if we elect, at

our sole discretion, to require Lincoln Park to purchase $100,000 of our stock, then we would issue 417 shares of the pro rata commitment fee, which is the product of $100,000 (the amount we have elected to sell) divided by $10,287,680 (the total remaining amount we can sell Lincoln Park under the LP Purchase Agreement) multiplied by 42,865 (the total number of remaining pro rata commitment shares), rounded up or down to the nearest whole share. The pro rata commitment shares will only be issued pursuant to this formula as and when we elect at our discretion to sell stock to Lincoln Park. Lincoln Park may not assign or transfer its rights and obligations under the LP Purchase Agreement. If all of the 560,000 shares offered by Lincoln Park under this prospectus were issued and outstanding as of the date hereof, such shares would represent 9.7% of the total number of shares of our common stock outstanding and 12.9% of the total number of outstanding shares held by non-affiliates, in each case as of the date hereof. If we elect to issue and sell more than the 560,000 shares offered under this prospectus to Lincoln Park, which we have the right, but not the obligation, to do, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our stockholders. The number of shares ultimately offered for resale by Lincoln Park is dependent upon the number of shares we sell to Lincoln Park under the LP Purchase Agreement.

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Selling Stockholder Table

This prospectus relates to the possible resale by Lincoln Park of shares of common stock that have been or may be issued to Lincoln Park pursuant to the LP Purchase Agreement. We filed the registration statement of which this prospectus forms a part pursuant to the provisions of the LP Registration Rights Agreement, which we entered into with Lincoln Park on March 22, 2016 concurrently with our execution of the LP Purchase Agreement, in which we agreed to provide certain registration rights with respect to sales by Lincoln Park of the shares of our common stock that have been or may be issued to Lincoln Park under the LP Purchase Agreement.

Lincoln Park, as the selling stockholder, may, from time to time, offer and sell pursuant to this prospectus any or all of the shares that we have sold or may sell to Lincoln Park under the LP Purchase Agreement. Lincoln Park may sell some, all or none of its shares. We do not know how long Lincoln Park will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with Lincoln Park regarding the sale of any of the shares.

The following table presents information regarding Lincoln Park and the shares that it may offer and sell from time to time under this prospectus. The table is prepared based on information supplied to us by Lincoln Park, and reflects its holdings as of April 20, 2017. Neither Lincoln Park nor any of its affiliates has held a position or office, or had any other material relationship, with us or any of our predecessors or affiliates. As used in this prospectus, the term "selling stockholder" includes Lincoln Park and any donees, pledgees, transferees or other successors in interest selling shares received after the date of this prospectus from Lincoln Park as a gift, pledge or other non-sale related transfer. Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The percentage of shares beneficially owned prior to the offering is based on 5,472,532 shares of our common stock actually outstanding as of April 20, 2017.

Selling Stockholder	Shares Beneficially Owned Before this Offering		Percentage of Outstanding Shares Beneficially Owned Before this Offering		Shares to be Sold in this Offering	Number Of Shares Beneficially Owned After this Offering	Percentage of Outstanding Shares Beneficially Owned After this Offering	
Lincoln Park Capital Fund, LLC (1)	282,900	(2)	4.9	%(3)	560,000 (4)	282,900	4.7	%

*** Less than 1%**

(1) Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, the manager of Lincoln Park Capital Fund, LLC, are deemed to be beneficial owners of all of the shares of common stock owned by Lincoln Park Capital Fund, LLC. Messrs. Cope and Scheinfeld have shared voting and investment power over the shares being offered under the prospectus filed with the SEC in connection with the transactions contemplated under the LP Purchase Agreement. Lincoln Park Capital, LLC is not a licensed broker dealer or an affiliate of a licensed broker dealer.

(2) Represents (i) 21,000 shares of common stock previously issued, none of which are covered by the registration statement that includes this prospectus, and (ii) warrants to purchase 261,900 shares of common stock exercisable within 60 days of April 20, 2017, none of which shares are covered by the registration statement that includes this prospectus.

(3) Based on 5,472,532 outstanding shares of our common stock as of April 20, 2017, which includes 17,135 shares issued as commitment shares and 260,000 shares sold under the LP Purchase Agreement. Although we may at our discretion elect to issue to Lincoln Park up to an aggregate amount of $12,000,000 of our common stock under the LP Purchase Agreement, other than the shares described in the immediately preceding sentence, such shares are not included in determining the percentage of shares beneficially owned before this offering.

(4) Assumes issuance of the maximum 560,000 shares being registered hereby, which reflects 277,135 shares already issued and the issuance of an additional 240,000 shares under the LP Purchase Agreement and 42,865 additional commitment shares.

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PLAN OF DISTRIBUTION

Selling Stockholder

A portion of the common stock offered by this prospectus is being offered by the selling stockholder, Lincoln Park. The common stock may be sold or distributed from time to time by the selling stockholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the common stock offered by the selling stockholder under this prospectus could be effected in one or more of the following methods:

ordinary brokers' transactions;

transactions involving cross or block trades;

through brokers, dealers, or underwriters who may act solely as agents;

"at the market" into an existing market for the common stock;

in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;

in privately negotiated transactions; or

any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares offered by the selling stockholder may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares offered by the selling stockholder may not be sold unless they have been registered or qualified for sale in the state or an exemption from the state's registration or qualification requirement is available and complied with.

Lincoln Park is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act.

Lincoln Park has informed us that it intends to use an unaffiliated broker-dealer to effectuate all sales, if any, of the common stock that it may purchase from us pursuant to the LP Purchase Agreement. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions.

Brokers, dealers, underwriters or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from the selling stockholder and/or purchasers of the common stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions. Neither we nor Lincoln Park can presently estimate the amount of compensation that any agent will receive.

We know of no existing arrangements between Lincoln Park or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares offered by this prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters or dealers and any compensation from the selling stockholder, and any other required information.

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We will pay the expenses incident to the registration, offering, and sale of the shares to Lincoln Park. We have agreed to indemnify Lincoln Park and certain other persons against certain liabilities in connection with the offering of shares of common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Lincoln Park has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Lincoln Park specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

Lincoln Park has represented to us that at no time prior to the LP Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock or any hedging transaction, which establishes a net short position with respect to our common stock. Lincoln Park agreed that during the term of the LP Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised Lincoln Park that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.

Issuance of Shares Upon Exercise of Outstanding Warrants

Upon receipt of proper notice by any of the holders of the 2013 Warrants, 2014 Warrants or 2016 Warrants that such holder desires to exercise a warrant, we will, within the time allotted by the agreement governing the warrant, issue instructions to our transfer agent to issue to the holder shares of common stock, free of a restrictive legend. Shares of common stock underlying any of the 2013 Warrants, 2014 Warrants or 2016 Warrants that are held by affiliates will be issued free of legend but will be deemed control securities.

DESCRIPTION OF CAPITAL STOCK

General

As of the date hereof, our authorized capital stock consists of 10,350,000 shares of capital stock, of which 10,000,000 shares are common stock, par value $0.001 per share, 230,000 shares are undesignated preferred stock, 10,000 shares are Series B Convertible Preferred Stock, par value $0.05 per share (none of which are currently outstanding), 10,000 shares are Series C Convertible Preferred Stock, par value $0.05 per share (none of which are currently outstanding) and 100,000 shares are Series A Junior Participating Preferred Stock, par value $0.001 per share (which are available for issuance under our shareholder rights plan). As of the date of this prospectus, there were issued and outstanding 5,472,532 shares of common stock, options to purchase 464,355 shares of common stock and warrants to purchase 2,853,575 shares of common stock.

On October 7, 2016, we effected a reverse stock split at a ratio of one-for-ten of all the issued and outstanding shares of our common stock. We also reduced our authorized shares of common stock from 100,000,000 to 10,000,000.

Common Stock

Holders of our common stock are entitled to one vote for each share held in the election of directors and in all other matters to be voted on by the stockholders. There is no cumulative voting in the election of directors. Holders of common stock are entitled to receive dividends as may be declared from time to time by our board of directors out of funds legally available therefor. In the event of liquidation, dissolution or winding up of the corporation, holders of common stock are to share in all assets remaining after the payment of liabilities. Holders of common stock have no pre-emptive or conversion rights and are not subject to further calls or assessments. There are no redemption or sinking fund provisions applicable to the common stock. The rights of the holders of the common stock are subject to any rights that may be fixed for holders of preferred stock. All of the outstanding shares of common stock are fully paid and non-assessable.

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Preferred Stock

Our Certificate of Incorporation authorizes the issuance of 230,000 shares of undesignated preferred stock, 10,000 shares of Series B Convertible Preferred Stock, par value $0.05 per share ("Series B Preferred Stock"), 10,000 shares of Series C Convertible Preferred Stock, par value $0.05 per share ("Series C Preferred Stock"), and 100,000 shares of Series A Junior Participating Preferred Stock, par value $0.001 per share ("Junior Preferred Stock"). The board of directors is empowered, without stockholder approval, to designate and issue additional series of preferred stock with dividend, liquidation, conversion, voting or other rights, including the right to issue convertible securities with no limitations on conversion, which could adversely affect the voting power or other rights of the holders of our common stock, substantially dilute a common stockholder's interest and depress the price of our common stock.

No shares of the Series B Preferred Stock, the Series C Preferred Stock or the Junior Preferred Stock are outstanding. Due to the terms of the Series C Preferred Stock, no additional shares of Series C Preferred Stock can be issued.

Series B Preferred Stock

Our Board of Directors has authorized the issuance of 10,000 shares of Series B Preferred Stock, 6,411 of which have been converted to common stock and therefore are not reissuable.

Voting

Each holder of Series B Preferred Stock is entitled to the number of votes equal to the number of whole shares of common stock into which the shares of Series Preferred Stock held by such holder is then convertible (as adjusted from time to time pursuant to our Certificate of Incorporation) with respect to any and all matters presented to the stockholders for their action or consideration. Except as provided by law, holders of Series B Preferred Stock vote together with the holders of common stock as a single class.

Dividends

The holders of the Series B Preferred Stock are entitled to a dividend of 8% per annum, payable annually in shares of Series B Preferred Stock. In addition, when and if the Board of Directors shall declare a dividend payable with respect to the then outstanding shares of common stock, the holders of the Series B Preferred Stock are entitled to the amount

of dividends per share as would be payable on the largest number of whole shares of common stock into which each share of Series B Preferred Stock could then be converted.

Conversion

Each share of Series B Cumulative Convertible Preferred is convertible into 1.333 shares of common stock. The conversion ratio is subject to an adjustment upon the issuance of additional shares of common stock for a price below the closing price of the common stock and equitable adjustment for stock splits, dividends, combinations, reorganizations and similar events.

Liquidation

In the event of liquidation, dissolution or winding up of the company, the holders of Series B Preferred Stock then outstanding will be entitled to be paid an amount equal to $1,000 per share (subject to adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares pursuant to our Certificate of Incorporation), plus any dividends declared but unpaid thereon before any payment is made to the holders of common stock, Junior Preferred Stock or any other class or series of stock ranking on liquidation junior to the Series B Preferred Stock. After the holders of the Series B Preferred Stock have been paid in full, the remaining assets of the company will be distributed to the holders of Junior Preferred Stock and common stock, subject to the preferences of the Junior Preferred Stock.

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Redemption

Subject to certain conditions, after the second anniversary of the issuance of the Series B Preferred Stock, the company will have the right, but not the obligation, to redeem the then-outstanding shares of Series B Preferred Stock for cash in an amount calculated pursuant to the terms of our Certificate of Incorporation.

Junior Preferred Stock

Voting

The holders of the Junior Preferred Stock will have 10,000 votes per share of Junior Preferred Stock on all matters submitted to a vote of our stockholders, including the election of directors.

Dividends

If the Board of Directors declares or pays dividends on common stock, the holders of the Junior Preferred Stock would be entitled to receive a per share dividend payment of 10,000 times the dividend declared per share of common stock. In the event we make a distribution on the common stock, the holders of the Junior Preferred Stock will be entitled to a per share distribution, in like kind, of 10,000 times such distribution made per share of common stock. In the event of any merger, consolidation or other transaction in which shares of common stock are exchanged, each share of Junior Preferred Stock will be entitled to receive 10,000 times the amount received per share of common stock. These rights are protected by customary anti-dilution provisions.

Liquidation

Upon any liquidation, dissolution or winding up, no distribution may be made to the holders of shares of stock ranking junior to the Junior Preferred Stock unless the holders of the Junior Preferred Stock have received the greater of (i) $37.00 per one one-thousandth share plus an amount equal to accrued and unpaid dividends and distributions thereon, and (ii) an amount equal to 10,000 times the aggregate amount to be distributed per share to holders of common stock. Further, no distribution may be made to the holders of stock ranking on a parity upon liquidation, dissolution or winding up with the Junior Preferred Stock, unless distributions are made ratably on the Junior Preferred Stock and all other shares of such parity stock in proportion to the total amounts to which the holders of the Junior Preferred Stock

are entitled above and to which the holders of such parity shares are entitled.

Outstanding Warrants

2013 Warrants

On June 25, 2013, we consummated a public offering of an aggregate of 677,400 shares of common stock, together with 2013 Warrants to purchase up to 508,050 shares of common stock. In connection with the offering, we also issued the placement agent a 2013 Warrant to purchase up to 33,609 shares of common stock. Such 2013 Warrants may be exercised on a “cashless” basis.

As of the date of this prospectus, 261,250 shares of common stock remain issuable upon the exercise of the 2013 Warrants, which expire in June 2018.

As of the date of this prospectus, the 2013 Warrants were exercisable to purchase shares of common stock at $0.80 per share. The exercise price and the number of shares of common stock purchasable upon the exercise of each 2013 Warrant are subject to adjustment upon the happening of certain events, such as stock dividends, distributions, and splits.

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2014 Warrants

On December 24, 2014, we consummated a public offering of an aggregate of 188,653 shares of common stock, together with 2014 Warrants to purchase up to 113,192 shares of common stock. In connection with the offering, we also issued the underwriter a 2014 Warrant to purchase up to 3,740 shares of common stock.

As of the date of this prospectus, 110,932 shares of common stock remain issuable upon the exercise of the 2014 Warrants, which expire in 2019.

As of the date of this prospectus, the 2014 Warrants were exercisable to purchase shares of common stock at $14.80 per share. The exercise price and the number of shares of common stock purchasable upon the exercise of each 2014 Warrant are subject to adjustment upon the happening of certain events, such as stock dividends, distributions, and splits.

2016 Warrants

On December 16, 2016, we consummated a public offering of an aggregate of 1,670,000 shares of common stock, together with 2016 Warrants to purchase up to 2,370,005 shares of common stock. In connection with the offering, we also issued the underwriter a 2016 Warrant to purchase up to 33,400 shares of common stock.

As of the date of this prospectus, 2,403,405 shares of common stock remain issuable upon the exercise of the 2016 Warrants. The 2016 Warrants issued to investors were exercisable upon issuance and expire in 2021, and the 2016 Warrants issued to the underwriter will become exercisable in December 2017 and will expire in 2021.

As of the date of this prospectus, the exercise price of the 2016 Warrants is $3.95 per share of common stock. The exercise price and the number of shares of common stock purchasable upon the exercise of each 2016 Warrant are subject to adjustment upon the happening of certain events, such as stock dividends, distributions, and splits.

Other Warrants

As of the date of this prospectus, we also had outstanding warrants, other than the 2013 Warrants, the 2014 Warrants and the 2016 Warrants, to purchase 77,988 shares of common stock, all of which are exercisable at a weighted average exercise price of approximately $5.67 per share.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, our Board of Directors approved either the business combination or the transaction which 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 commenced, calculated as provided under Section 203; or
- at or subsequent to the date of the transaction, the business combination is approved by our Board of Directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation’s outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our Board of Directors does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

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Anti-Takeover Provisions

Provisions in our Certificate of Incorporation, by-laws and stockholder rights plan may discourage certain types of transactions involving an actual or potential change of control of our company which might be beneficial to us or our security holders.

As noted above, our Certificate of Incorporation permits our board of directors to issue shares of any class or series of preferred stock in the future without stockholder approval and upon such terms as our board of directors may determine. The rights of the holders of common stock will be subject to, and may be adversely affected by, the rights of the holders of any class or series of preferred stock that may be issued in the future.

Our bylaws generally provide that any board vacancy, including a vacancy resulting from an increase in the authorized number of directors, may be filled by a majority of the directors, even if less than a quorum.

Additionally, our bylaws provide that stockholders must provide timely notice in writing to bring business before an annual meeting of shareholders or to nominate candidates for election as directors at an annual meeting of shareholders. Notice for an annual meeting is timely if our Secretary receives the written notice not less than 45 days and no more than 75 days prior to the anniversary of the date that we mailed proxy materials for the preceding year's annual meeting. However, if the date of the annual meeting is advanced more than thirty (30) days prior to, or delayed by more than thirty (30) days after, the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be delivered not later than the close of business on the later of (i) the 90th day prior to such annual meeting or (ii) the 10th day following the day on which public announcement of the date of such annual meeting is first made. Our bylaws also specify the form and content of a shareholder's notice. These provisions may prevent shareholders from bringing matters before an annual meeting of shareholders or from making nominations for directors at an annual meeting of shareholders.

Shareholder Rights Plan

On June 22, 2007, our board of directors adopted a shareholder rights plan for our company and in connection therewith declared a dividend of one preferred share purchase right for each outstanding share of common stock. Each Right entitles the registered holder to purchase one one-thousandth of a share of our Junior Preferred Stock at a price of $37.00 per one one-thousandth of a share, subject to certain adjustments. Initially, the rights are not exercisable, but become exercisable upon the earlier of (i) 10 days following a public announcement that a person or group of affiliated or associated persons, with certain exceptions, has acquired beneficial ownership of 15% or more of the then outstanding common stock or (ii) 10 business days following the commencement of, or announcement of an intention to make, a tender offer or exchange offer the consummation of which would result in the beneficial ownership by a

person or group of 15% or more of such outstanding common stock.

Our board may redeem all of the rights for $0.10 per right at any time before the earlier of (i) the time the rights become exercisable or (ii) July 1, 2017, the date the rights expire.

Transfer Agent

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, NY 11219 and its telephone number is (718) 921-8200.

Listing

Our common stock and the 2016 Warrants are listed on The NASDAQ Capital Market under the symbols “SNGX” and “SNGXW,” respectively.

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LEGAL MATTERS

The validity of the securities being offered by this prospectus has been passed upon for us by Duane Morris LLP, Miami, Florida.

EXPERTS

The consolidated balance sheets of Soligenix, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of operations, stockholders' equity (deficiency), and cash flows for each of the years then ended, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities we are offering under this prospectus. 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 may read and copy the registration statement, as well as our reports, proxy statements and other information, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the Public Reference Room. The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, where our SEC filings are also available. The address of the SEC's web site is *http://www.sec.gov*.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information we file with the SEC. This means that we can disclose important information to you by referring you to those documents without restating that information in this document. The information incorporated by reference into this prospectus is considered to be part of this prospectus, and information we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities

Exchange Act of 1934, as amended (the "Exchange Act"), after the date of this prospectus and prior to the termination of this offering, will automatically update and supersede the information contained in this prospectus and documents listed below. We incorporate by reference into this prospectus the documents listed below, except to the extent information in those documents differs from information contained in this prospectus, and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including exhibits (other than in each case, documents or information deemed to be furnished and not filed in accordance with SEC rules):

(a) Our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, as filed with the SEC on March 27, 2017; and

(b) The description of our common stock, par value $0.001 per share, contained in our Registration Statement on Form 8-A, filed with the SEC on December 12, 2016 and under the caption "Description of Capital Stock" in the Registrant's prospectus, dated as of December 12, 2016, forming a part of the Registration Statement on Form S-1 (Registration No. 333-214038) filed with the SEC, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made after the initial filing date of the registration statement of which this prospectus is a part until the offering of the particular securities covered by a prospectus supplement or term sheet has been completed. We are not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

We will provide to each person, including any beneficial owner, to whom a copy of this prospectus is delivered, a copy of any or all of the information that we have incorporated by reference into this prospectus. We will provide this information upon written or oral request at no cost to the requester. You may request this information by contacting our corporate headquarters at the following address: Soligenix, Inc., 29 Emmons Drive, Suite C-10, Princeton, New Jersey 08540, Attn: Secretary, or by calling 609-538-8200.

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560,000 Shares of Common Stock for Resale by Selling Stockholders

2,775,587 Shares of Common Stock Issuable Upon Exercise of Outstanding Warrants

PROSPECTUS

_____, 2017

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PART II — INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth all expenses to be paid by the registrant, other than estimated underwriting discounts and commissions, in connection with our public offering. All amounts shown are estimates except for the SEC registration fee, the NASDAQ listing fee and the FINRA filing fee:

SEC registration fees	$7,301,23
FINRA filing fees	$9,808.00
NASDAQ initial listing fee	$42,000.00
Legal fees and expenses	$600,000.00
Accounting fees and expenses	$182,650.00
Miscellaneous expense	$260,382.71
Total	$1,102,141.94

Item 15. Indemnification of Directors and Officers.

Section 145(a) of the Delaware General Corporation Law provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), because he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Section 145(b) of the Delaware General Corporation Law provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made with respect to any

claim, issue or matter as to which he or she shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, he or she is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or other adjudicating court shall deem proper.

Section 145(g) of the Delaware General Corporation Law provides, in general, that a corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify the person against such liability under Section 145 of the Delaware General Corporation Law.

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Section 102(b)(7) of the Delaware General Corporation Law grants the Company the power to limit the personal liability of its directors to the Company or its stockholders for monetary damages for breach of a fiduciary duty. Article X of the Company's Certificate of Incorporation, as amended, provides for the limitation of personal liability of the directors of the Company as follows:

"A Director of the Corporation shall have no personal liability to the corporation or its stockholders for monetary damages for breach of his fiduciary duty as a Director; provided, however, this Article shall not eliminate or limit the liability of a Director (i) for any breach of the Director's duty of loyalty to the Corporation or its stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) for the unlawful payment of dividends or unlawful stock repurchases under Section 174 of the General Corporation Law of the State of Delaware; or (iv) for any transaction from which the Director derived an improper personal benefit. If the General Corporation Law is amended after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended."

Article VIII of the Company's Bylaws, as amended and restated, provide for indemnification of directors and officers to the fullest extent permitted by Section 145 of the Delaware General Corporation Law.

The Company has a directors' and officers' liability insurance policy.

The above discussion is qualified in its entirety by reference to the Company's Certificate of Incorporation and Bylaws.

Item 16. Exhibits and Financial Statement Schedules.

(a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference.

2.1	Agreement and Plan of Merger, dated May 10, 2006 by and among the Company, Corporate Technology Development, Inc., Enteron Pharmaceuticals, Inc. and CTD Acquisition, Inc. (incorporated by reference to Exhibit 2.1 included in our Registration Statement on Form SB-2 (File No. 333-133975) filed on May 10, 2006).
3.1	Second Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 included in our current report on Form 8-K filed on June 22, 2012).

3.2	By-laws (incorporated by reference to Exhibit 3.1 included in our Quarterly Report on Form 10-QSB, as amended, for the fiscal quarter ended June 30, 2003).
3.3	Certificate of Amendment to Second Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 included in our current report on Form 8-K filed on June 22, 2016).
3.4	Certificate of Amendment to Second Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 included in our current report on Form 8-K filed on October 7, 2016).
4.1	Rights Agreement dated June 22, 2007, between the Company and American Stock Transfer & Trust Company, as Rights Agent (incorporated by reference to Exhibit 4.1 included in our current report on Form 8-K filed on June 22, 2007).
4.2	Form of Right Certificate (incorporated by reference to Exhibit 4.2 included in our current report on Form 8-K filed on June 22, 2007).
4.3	Form of Warrant issued to each investor in the January 2009 private placement (incorporated by reference to Exhibit 4.18 included in our Registration Statement on Form S-1 (File No. 333-149239) filed on February 14, 2008).
4.4	Form of Warrant issued to each investor in the September 2009 private placement (incorporated by reference to Exhibit 10.2 included in our current report on Form 8-K filed on September 29, 2009).
4.5	Warrant dated April 19, 2010, issued to Fusion Capital Fund II, LLC (incorporated by reference to Exhibit 4.10 included in our Post-Effective Amendment to Registration Statement on Form S-1 filed on April 20, 2010).
4.6	Form of Common Stock Purchase Warrant issued to each investor in the June 2010 private placement (incorporated by reference to Exhibit 10.2 included in our current report on Form 8-K filed on June 18, 2010).

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4.7	Warrant dated December 20, 2012 and issued to Sigma-Tau to purchase 35,707 shares of the Company's common stock (incorporated by reference to Exhibit 10.2 of our current report on Form 8-K filed on December 27, 2012).
4.8	Warrant dated December 20, 2012 and issued to SINAF S.A. to purchase 8,781 shares of the Company's common stock (incorporated by reference to Exhibit 10.3 of our current report on Form 8-K filed on December 27, 2012).
4.9	Warrant dated December 20, 2012 and issued to McDonald to purchase 28,000 shares of the Company's common stock (incorporated by reference to Exhibit 10.6 of our current report on Form 8-K filed on December 27, 2012).
4.10	Form of Common Stock Purchase Warrant issued to each investor in the June 2013 registered public offering (incorporated by reference to Exhibit 10.3 included in our current report on Form 8-K filed on June 24, 2013).
4.11	Form of Warrant issued to Maxim Group LLC (incorporated by reference to Exhibit 10.4 included in our current report on Form 8-K filed on June 24, 2013).
4.12	Form of Warrant to Purchase Common Stock issued to each investor in the December 2014 registered public offering (incorporated by reference to Exhibit 4.12 included in our Registration Statement on Form S-1 (File No. 333-199761) filed on December 17, 2014).
4.13	Form of Warrant to Purchase Common Stock issued to Roth Capital Partners, LLC (incorporated by reference to Exhibit 4.13 included in our Registration Statement on Form S-1 (File No. 333-199761) filed on December 17, 2014).
4.14	Warrant Agency Agreement by and between the Company and American Stock Transfer & Trust Company, LLC (incorporated by reference to Exhibit 10.1 included in our current report on Form 8-K filed on December 16, 2016).
4.15	Representative's Warrant (incorporated by reference to Exhibit 4.15 included in our Registration Statement on Form S-1 (File No. 333-214038) filed on November 14, 2016).
5.1	Opinion of Duane Morris LLP. **
21.1	Subsidiaries of the Company. **
23.1	Consent of EisnerAmper LLP. *
23.2	Consent of Duane Morris LLP (See Exhibit 5.1 above). **
24.1	Power of Attorney. *

* Filed herewith.

** Previously filed.

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Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

provided, however, that:

(A) Paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the registration statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement; and

(B) Paragraphs (a)(1)(i), (a)(1)(ii), and (a)(1)(iii) of this section do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained

in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purposes of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of the securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the Registration Statement as of the date the filed prospectus was deemed part of and included in the Registration Statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a Registration Statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the Registration Statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the Registration Statement relating to the securities in the Registration Statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a Registration Statement or prospectus that is part of the Registration Statement or made in a document incorporated or deemed incorporated by reference into the Registration Statement or prospectus that is part of the Registration Statement will, as to the purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the Registration Statement or prospectus that was part of the Registration Statement or made in any such document immediately prior to such effective date.

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(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) For the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

(d) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Princeton, State of New Jersey, on April 26, 2017.

SOLIGENIX, INC.

By: */s/ Christopher J. Schaber*
Name: Christopher J. Schaber, PhD
Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act, this Post-Effective Amendment No. 1 to Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	**Title**	**Date**
By: */s/ Christopher J. Schaber* Christopher J. Schaber, PhD	Chairman, President and Chief Executive Officer (Principal Executive Officer)	April 26, 2017
By: * Keith L. Brownlie, CPA	Director	April 26, 2017
By: * Marco M. Brughera, DVM	Director	April 26, 2017
By: * Gregg A. Lapointe, CPA	Director	April 26, 2017
By: * Robert J. Rubin, MD	Director	April 26, 2017
By: * Jerome Zeldis, MD, PhD	Director	April 26, 2017
By: */s/ Karen R. Krumeich* Karen R. Krumeich	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	April 26, 2017

*By: */s/ Karen R. Krumeich*

Karen R. Krumeich
Attorney-in-Fact