SPHERIX INC Form S-3 January 09, 2018
As filed with the Securities and Exchange Commission on January 9, 2018
Registration No. 333
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM S-3
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933
SPHERIX INCORPORATED
(Exact name of registrant as specified in its charter)
Delaware 000-05576 52-0849320 (State or other jurisdiction of (Primary Standard Industrial (I.R.S. Employer incorporation or organization) Classification Code Number) Identification Number) One Rockefeller Plaza
New York, NY 10020
(212) 745-1374
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices
Anthony Hayes
Chief Executive Officer

#### **Spherix Incorporated**

One Rock	efeller Plaz	aNew York	NY 10020	(212) 745-1374
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(Name, address, including zip code, and telephone number, including area code, of agent for service)

Please send a copy of all communications to:

Robert Charron, Esq.

Sarah Williams, Esq.

Ellenoff Grossman & Schole LLP

1345 Avenue of the Americas

**New York, New York 10105-0302** 

(212) 370-1300

Approximate date of commencement proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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, 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

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

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

#### **CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered (1)	Amount to be Registered (2) (3)	Proposed Maximum Aggregate Offering Price per Security (2) (3)	Proposed Maximum Aggregate Offering Price (2) (3)	Amount of Registration Fee (4)
Common Stock, par value \$.0001 per share			_	_
Preferred Stock, par value \$.0001 per share				_
Purchase Contracts (5)			_	_
Warrants to Purchase common stock, Preferred Stock or other Securities (6) Subscription Rights to Purchase common stock or Preferred Stock Depositary Shares Debt Securities (which may be senior or subordinated, convertible or non-convertible, secured or unsecured)			_	
Units (7)		_	_	_
TOTAL		_	\$30,000,000	\$3,735

- (1) Securities registered hereunder may be sold separately, together or as units with other securities registered hereunder.
- (2) Not specified as to each class of securities to be registered pursuant to Form S-3 General Instruction II.D.

  The Registrant is registering an indeterminate aggregate principal amount and number of securities of each identified class of securities up to a proposed aggregate offering price of \$30,000,000, which may be offered from time to time in unspecified numbers and at indeterminate prices, and as may be issuable upon conversion, redemption, repurchase, exchange, or exercise of any securities registered hereunder, including under any
- applicable anti-dilution provisions. In addition, pursuant to Rule 416 under the Securities Act of 1933, as amended, the shares being registered hereunder include such indeterminate number of shares of common stock and preferred stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.
- (4) The registration fee is calculated in accordance with Rule 457(o) under the Securities Act of 1933, as amended. Includes purchase contracts issuable upon conversion or exchange of securities registered hereunder to the extent
- (5) any such securities are by their terms convertible into or exchangeable for purchase contracts. Each purchase contract obligates the registrant to sell, and the holder thereof to purchase, an indeterminate number of debt securities, shares of common stock, shares of preferred stock or other securities registered hereunder.
- Warrants may represent rights to purchase debt securities, common stock, preferred stock or other securities registered hereunder.
- (7) Each Unit consists of any combination of two or more of the securities being registered hereby.

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 of 1933 or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell the securities until the Registration Statement filed with the Securities and Exchange Commission, of which this prospectus is a part, is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.
SUBJECT TO COMPLETION, DATED JANUARY 9, 2018
Prospectus
SPHERIX INCORPORATED
\$30,000,000
COMMON STOCK
PREFERRED STOCK
PURCHASE CONTRACTS
WARRANTS
SUBSCRIPTION RIGHTS
DEPOSITARY SHARES
DEBT SECURITIES
UNITS

common stock; preferred stock;

purchase contracts; warrants to purchase our securities; subscription rights to purchase any of the foregoing securities; depositary shares;

secured or unsecured debt securities consisting of notes, debentures or other evidences of indebtedness which may be senior debt securities, senior subordinated debt securities or subordinated debt securities, each of which may be convertible into equity securities; or

units comprised of, or other combinations of, the foregoing securities.

We may offer and sell these securities separately or together, in one or more series or classes and in amounts, at prices and on terms described in one or more offerings. We may offer securities through underwriting syndicates managed or co-managed by one or more underwriters or dealers, through agents or directly to purchasers. The prospectus supplement for each offering of securities will describe in detail the plan of distribution for that offering. For general information about the distribution of securities offered, please see "Plan of Distribution" in this prospectus.

Each time our securities are offered, we will provide a prospectus supplement containing more specific information about the particular offering and attach it to this prospectus. The prospectus supplements may also add, update or change information contained in this prospectus. This prospectus may not be used to offer or sell securities without a prospectus supplement which includes a description of the method and terms of this offering.

Our common stock is quoted on the Nasdaq Capital Market under the symbol "SPEX." The last reported sale price of our common stock on The NASDAQ Capital Market on January 8, 2018 was \$1.36 per share. The aggregate market value of our outstanding common stock held by non-affiliates is \$8,428,883 based on 6,234,898 shares of outstanding common stock, of which 6,197,708 shares are held by non-affiliates, and a per share price of \$1.36 which was the closing sale price of our common stock as quoted on the NASDAQ Capital Market on January 8, 2018. During the 12 calendar month period that ends on, and includes, the date of this prospectus, we have not offered and sold any of our securities pursuant to General Instruction I.B.6 of Form S-3.

If we decide to seek a listing of any preferred stock, purchase contracts, warrants, subscriptions rights, depositary shares, debt securities or units offered by this prospectus, the related prospectus supplement will disclose the exchange or market on which the securities will be listed, if any, or where we have made an application for listing, if any.

Investing in our securities involves certain risks. See "Risk Factors" beginning on page 6 and the risk factors in our most recent Annual Report on Form 10-K, which is incorporated by reference herein, as well as in any other recently filed quarterly or current reports and, if any, in the relevant prospectus supplement. We urge you to carefully read this prospectus and the accompanying prospectus supplement, together with the documents we incorporate by reference, describing the terms of these securities before investing.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

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# TABLE OF CONTENTS

	Page
About This Prospectus	1
Cautionary Statement Regarding Forward-Looking Statements	2
Prospectus Summary	3
Risk Factors	6
<u>Use of Proceeds</u>	7
<u>Plan of Distribution</u>	8
Description of Securities We May Offer	10
Forms of Securities	22
<u>Legal Matters</u>	24
<u>Experts</u>	24
Where You Can Find Additional Information	24
Incorporation of Documents by Reference	24

i

## **ABOUT THIS PROSPECTUS**

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may offer and sell, either individually or in combination, in one or more offerings, any of the securities described in this prospectus, for total gross proceeds of up to \$30,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities under this prospectus, we will provide a prospectus supplement to this prospectus that will contain more specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change any of the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus.

We urge you to read carefully this prospectus, any applicable prospectus supplement and any free writing prospectuses we have authorized for use in connection with a specific offering, together with the information incorporated herein by reference as described under the heading "Incorporation of Documents by Reference," before investing in any of the securities being offered. You should rely only on the information contained in, or incorporated by reference into, this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we have authorized for use in connection with a specific offering. We have not authorized anyone to provide you with different or additional information. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so.

The information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

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

This prospectus contains, or incorporates by reference, trademarks, tradenames, service marks and service names of Spherix Incorporated.

#### CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This prospectus and any accompanying prospectus supplement and the documents incorporated by reference herein may contain forward looking statements that involve risks and uncertainties. All statements other than statements of historical fact contained in this prospectus and any accompanying prospectus supplement and the documents incorporated by reference herein, including statements regarding future events, our future financial performance, business strategy, and plans and objectives of management for future operations, are forward-looking statements. We have attempted to identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "should," or "will" or the negative of these other comparable terminology. Although we do not make forward looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks outlined under "Risk Factors" or elsewhere in this prospectus and the documents incorporated by reference herein, which may cause our or our industry's actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Moreover, we operate in a highly regulated, very competitive, and rapidly changing environment. New risks emerge from time to time and it is not possible for us to predict all risk factors, nor can we address the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause our actual results to differ materially from those contained in any forward-looking statements.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short term and long term business operations, and financial needs. These forward-looking statements are subject to certain risks and uncertainties that could cause our actual results to differ materially from those reflected in the forward looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this prospectus, and in particular, the risks discussed below and under the heading "Risk Factors" and those discussed in other documents we file with the SEC. The following discussion should be read in conjunction with the consolidated financial statements for the fiscal years ended December 31, 2016 and 2015 and notes incorporated by reference herein. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statement.

You should not place undue reliance on any forward-looking statement, each of which applies only as of the date of this prospectus. Except as required by law, we undertake no obligation to update or revise publicly any of the forward-looking statements after the date of this prospectus to conform our statements to actual results or changed expectations.

Any forward-looking statement you read in this prospectus, any prospectus supplement or any document incorporated by reference reflects our current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our operations, operating results, growth strategy and liquidity. You should not place undue reliance on these forward-looking statements because such statements speak only as to the date when made. We assume no obligation to publicly update or revise these forward-looking statements for any reason, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future, except as otherwise required by applicable law. You are advised, however, to consult any further disclosures we make on related subjects in our reports on Forms 10-Q, 8-K and 10-K filed with the SEC. You should understand that it is not possible to predict or identify all risk factors. Consequently, you should not consider any such list to be a complete set of all potential risks or uncertainties.

#### PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus. This summary does not contain all the information that you should consider before investing in our Company. You should carefully read the entire prospectus, including all documents incorporated by reference herein. In particular, attention should be directed to our "Risk Factors," "Information With Respect to the Company," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and related notes thereto contained herein or otherwise incorporated by reference hereto, before making an investment decision.

As used herein, and any amendment or supplement hereto, unless otherwise indicated, "we," "us," "our," the "Company," or "Spherix" means Spherix Incorporated and its wholly-owned subsidiaries. Unless otherwise indicated, all references in this prospectus to "dollars" or "\$" refer to US dollars.

#### **Business Overview**

Spherix Incorporated is a technology development company committed to the fostering of innovative ideas. To that end, we own patented and unpatented intellectual property in the technology sphere. Spherix Incorporated was formed in 1967 as a scientific research company and for much of our history pursued drug development, including through Phase III clinical studies, which were largely discontinued in 2012. In 2012 and 2013, we shifted our focus to being a firm that owns, develops, acquires and monetizes intellectual property assets. Such monetization includes, but is not limited to, acquiring IP from patent holders in order to maximize the value of the patent holdings by conducting and managing a licensing campaign, commercializing the IP, or through the settlement and litigation of patents. We intend to generate revenues and related cash flows from the granting of intellectual property rights for the use of patented technologies that we own, that we manage for others, or that others manage on our behalf by agreement. To date, we have generated minimal revenues and no assurance can be provided that our business model will be successful.

In July 2013, we acquired 7 patents in the field of mobile communications from Rockstar Consortium US LP ("Rockstar"). This acquisition represented the first transaction believed to have been completed by Rockstar with any publicly traded company. Rockstar was launched in 2011 as an intellectual property licensing company to manage a patent portfolio related to the pre-bankruptcy technology and businesses of Nortel Networks ("Nortel"). Rockstar was formed by Apple, Inc., Microsoft Corporation, Sony Corporation, Blackberry Limited and LM Ericsson Telephone Company.

In September 2013, we acquired North South Holdings, Inc. ("North South") and its 222 patents in the fields of wireless communications, satellite, solar, and radio frequency and 2 patents in the field of pharmaceutical distribution. The 222 patents were developed by Harris Corporation, a leader in defense communications and electronics and acquired by North South prior to our acquisition of North South.

In December 2013, we acquired an additional 101 patents and patent applications from Rockstar in consideration for approximately \$60 million of our securities consisting of common stock and preferred stock. The patents had been developed by Nortel and acquired by Rockstar following Nortel's bankruptcy in 2011. The December 2013 acquisition included patents covering internet access and video and data transmission, among other things. We believe that many of these Nortel/Rockstar patents are standard essential patents, meaning they potentially cover various industry standards in wide use (although there is no assurance that a court or third-party would agree with such description).

Since our shift in focus to an intellectual property monetization platform, we have not generated any significant revenues. We have incurred losses from operations for the years ended December 31, 2016 and 2015 of \$8.6 million and \$52.0 million, respectively. Our net income attributable to common stockholders was approximately \$25.0 million, including \$31.5 million of deemed capital contribution on extinguishment of preferred stock for the year ended December 31, 2016. Our accumulated deficit was \$141.7 million at December 31, 2016.

On November 23, 2015, we and RPX Corporation ("RPX") entered into a Patent License Agreement (the "RPX License Agreement") under which the Company granted RPX the right to sublicense various patent license rights to certain RPX clients. The consideration to the Company included: (i) the transfer to the Company for cancellation of its remaining outstanding Series I Redeemable Convertible Preferred Stock (the "Series I Preferred Stock") then held by RPX, as to which a \$5,000,000 mandatory redemption payment would have been due from the Company on or by December 31, 2015; (ii) the transfer to the Company for cancellation of 13%, or 57,076 shares, of its Series H Convertible Preferred Stock (the "Series H Preferred Stock") then held by RPX, having a total carrying amount of \$4,765,846 at the time the stock was issued to Rockstar; (iii) cancellation of the only outstanding security interest on 101 of the Company's patents and patent applications acquired from Rockstar that originated at Nortel, which security interest had previously been transferred to RPX by Rockstar ("RPX Security Interest"); and (iv) \$300,000 in cash to the Company.

In consideration of the above, we granted RPX the rights to grant: (i) to Juniper Networks, Inc. ("Juniper"), a non-sublicensable, non-transferrable sublicense solely to use the six patents that had been asserted against Juniper by the Company ("Asserted Patents"); and (ii) to Apple, Blackberry, Cisco, Google, Huawei, Ericsson, Microsoft and Sony, to the extent those parties did not already have licenses to our patents, a non-sublicensable, non-transferrable sublicense to use our existing portfolio. Prior to our ownership of the patents originating at Nortel, each of Apple, Blackberry, Ericsson, Microsoft and Sony had previously been granted full licenses to those patents. In addition, we separately granted Huawei a license with respect to Huawei's network routers and switches. We also granted RPX the rights to grant Cisco and Google a sublicense under patents transferred to us through November 23, 2017. We have since dismissed our then-existing litigations against Cisco and Juniper and Cisco requested dismissal of its two petitions requesting *inter partes* re-examination ("IPR") of certain of our patents at the Patent Trial and Appeal Board of the United States Patent and Trademark Office.

Further, we agreed, until May 23, 2016 (the "Standstill Period") that: (a) we and RPX would engage in good faith negotiations for the grant of additional license rights to RPX's other members in exchange for additional consideration to us; (b) we would not divest, transfer, or exclusively license any of our current patents; (c) neither RPX nor any RPX affiliate would challenge, or knowingly and intentionally assist others in challenging, the validity, enforceability, or patentability of any of our patents in any court or administrative agency having jurisdiction to consider the issue; and (d) we would not bring an action against current RPX clients for patent infringement.

Following the Standstill Period, as a result of the release of the RPX Security Interest, the patents may be leveraged, divested, transferred or exclusively licensed in a manner that is beneficial to us and our stockholders. We retained the right to bring claims under the patents at any time against other parties who are not licensees or beneficiaries under the RPX License. We also retained rights, following the Standstill Period, to bring claims under the patents against current RPX clients who did not become licensees or beneficiaries during the Standstill Period and, with respect to Juniper, under all of the patents other than the six Asserted Patents.

In March 2016, we entered into an agreement (which was subsequently amended in April and May 2016) with Equitable IP Corporation ("Equitable") to facilitate the monetization of our patents (the "Monetization Agreement"). Pursuant to the Monetization Agreement, the Company is working together with Equitable to further develop and revise our ongoing litigation plan. See Note 4 to the Company's audited financial statements for additional details surrounding the Monetization Agreement.

On May 23, 2016, we and RPX, entered into a second, separate Patent License Agreement (the "Second RPX License") under which we granted RPX the right to sublicense various patent rights only to current RPX clients (as of May 23, 2016). In exchange for the rights we granted under the Second RPX License, we received the following consideration: (i) a cash payment made to us in May 2016 in the amount of \$4,355,000; and (ii) cancellation of the remaining 381,967 shares of our outstanding Series H Convertible Preferred Stock currently held by RPX, having a total carrying amount of \$31,894,244 at the time the stock was issued to Rockstar.

In consideration of the above, we granted RPX the rights to grant to its current clients: (i) a fully paid portfolio license, to the extent such parties did not already have licenses to the Company's patents; (ii) a covenant-not-to-sue current RPX clients for supply of chipsets; (iii) a standstill of litigation involving any patents acquired in the next five years.

In connection with the Second RPX License, we also granted to Alcatel-Lucent a license to the portfolio acquired from North South.

Under a separate agreement between us and RPX, we granted RPX the ability to grant to VTech Telecommunications Ltd. ("VTech") a sublicense for a fully paid portfolio license in exchange for an additional \$20,000 in cash consideration.

The license granted under the terms of the RPX License described herein does not extend to entities/companies that are not clients of RPX and provide chipsets or other hardware to current RPX clients.

In January of 2017, we settled our patent litigation against Uniden Corporation and Uniden America Corporation (collectively "Uniden") and granted Uniden a license limited to the patents we originally asserted against Uniden and VTech, including U.S. Patent Nos. 5,581,599 (the "599 Patent"); 5,752,195; 5,892,814; 6,614,899; and 6,965,614. On July 25, 2017, after full briefing and oral argument, the Federal Circuit issued an order affirming the PTAB's decision relating to the '599 Patent.

## **Recent Developments**

On June 30, 2017, the Company entered into a Securities Purchase Agreement (the "Purchase Agreement") with Hoth Therapeutics, Inc., a Nevada corporation ("Hoth"), for the purchase of an aggregate of 6,800,000 shares of common stock, par value \$0.0001 (the "Shares"), of Hoth, for a purchase price of \$675,000. As of June 30, 2017, Hoth had a total of 17,000,000 shares of common stock issued and outstanding. Hoth is a development stage biopharmaceutical company focused on unique targeted therapeutics for patients suffering from indications such as atopic dermatitis, also known as eczema. Hoth's primary asset is a sublicense agreement with Chelexa Biosciences, Inc. ("Chelexa") pursuant to which Chelexa has granted Hoth an exclusive sublicense to use its BioLexa products for the treatment of eczema. Hoth intends to develop BioLexa's applications in the aesthetic dermatology field to help treat and reduce post-procedure infections, accelerate healing and improve clinical outcomes for patients undergoing procedures. Hoth will be implementing FDA testing procedures for BioLexa. In addition to the Purchase Agreement, the Company and Hoth entered into a Registration Rights Agreement, pursuant to which Hoth is obligated to register for resale on a registration statement on Form S-1 under the Securities Act of 1933, as amended, or the Securities Act, all of the shares, no later than June 30, 2018. Further, the Company, Hoth and Hoth's existing shareholders have entered into a Shareholders Agreement, pursuant to which Spherix shall have a right to appoint one director to the board of directors of Hoth for so long as the Company holds at least 10% of the issued and outstanding common stock of Hoth.

On July 18, 2017, the Company entered into an underwriting agreement with Laidlaw & Company (UK) Ltd. with respect to the issuance and sale of an aggregate of 1,250,000 shares of the Company's common stock, par value \$0.0001 per share, in a firm commitment underwritten public offering which closed on July 24, 2017. Each share was sold for a price of \$2.00 for aggregate gross proceeds of \$2,500,000, with net proceeds of approximately \$2.1 million, after deducting the underwriting discounts and commissions (equivalent to 8% of gross proceeds) and estimated offering expenses.

# **Corporate Information**

Our principal executive offices are located at One Rockefeller Plaza, New York, NY 10020, our telephone number is (212) 745-1374, and our Internet website address www.spherix.com. The information on our website is not a part of, or incorporated in, this prospectus supplement.

#### **RISK FACTORS**

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should carefully consider the risk factors we describe in any prospectus supplement and in any related free writing prospectus for a specific offering of securities, as well as those incorporated by reference into this prospectus or such prospectus supplement. You should also carefully consider other information contained and incorporated by reference in this prospectus and any applicable prospectus supplement, including our financial statements and the related notes thereto incorporated by reference in this prospectus. The risks and uncertainties described in the applicable prospectus supplement and our other filings with the SEC incorporated by reference herein are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently consider immaterial may also adversely affect us. If any of the described risks occur, our business, financial condition or results of operations could be materially harmed. In such case, the value of our securities could decline and you may lose all or part of your investment.

#### **USE OF PROCEEDS**

Unless otherwise indicated in a prospectus supplement, we intend to use the net proceeds from these sales for working capital and general corporate purposes, which includes, without limitation, investing in or acquiring companies that are synergistic with or complimentary to our technologies, licensing activities related to our current and future product candidates and working capital, the development of emerging technologies, investing in or acquiring companies that are developing emerging technologies, licensing activities, or the acquisition of other businesses. The amounts and timing of these expenditures will depend on numerous factors, including the development of our current business initiatives.

#### PLAN OF DISTRIBUTION

We may sell the securities from time to time to or through underwriters or dealers, through agents, or directly to one or more purchasers. A distribution of the securities offered by this prospectus may also be effected through the issuance of derivative securities, including without limitation, warrants, rights to purchase and subscriptions. In addition, the manner in which we may sell some or all of the securities covered by this prospectus includes, without limitation, through:

a block trade in which a broker-dealer will attempt to sell as agent, but may position or resell a portion of the block, as principal, in order to facilitate the transaction;

purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account; or ordinary brokerage transactions and transactions in which a broker solicits purchasers.

A prospectus supplement or supplements with respect to each series of securities will describe the terms of the offering, including, to the extent applicable:

the terms of the offering;

the name or names of the underwriters or agents and the amounts of securities underwritten or purchased by each of them, if any;

the public offering price or purchase price of the securities or other consideration therefor, and the proceeds to be received by us from the sale;

any delayed delivery requirements;

any over-allotment options under which underwriters may purchase additional securities from us; any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation any discounts or concessions allowed or re-allowed or paid to dealers; and any securities exchange or market on which the securities may be listed.

The offer and sale of the securities described in this prospectus by us, the underwriters or the third parties described above may be effected from time to time in one or more transactions, including privately negotiated transactions, either:

at a fixed price or prices, which may be changed; in an "at the market" offering within the meaning of Rule 415(a)(4) of the Securities Act; at prices related to such prevailing market prices; or at negotiated prices.

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

#### **Underwriters and Agents; Direct Sales**

If underwriters are used in a sale, they will acquire the offered securities for their own account and may resell the offered securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate.

Unless the prospectus supplement states otherwise, the obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

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

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

## **Dealers**

We may sell the offered securities to dealers as principals. The dealer may then resell such securities to the public either at varying prices to be determined by the dealer or at a fixed offering price agreed to with us at the time of resale.

#### **Institutional Purchasers**

We may authorize agents, dealers or underwriters to solicit certain institutional investors to purchase offered securities on a delayed delivery basis pursuant to delayed delivery contracts providing for payment and delivery on a specified future date. The applicable prospectus supplement or other offering materials, as the case may be, will provide the details of any such arrangement, including the offering price and commissions payable on the solicitations.

We will enter into such delayed contracts only with institutional purchasers that we approve. These institutions may include commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions.

#### **Indemnification; Other Relationships**

We may provide agents, underwriters, dealers and remarketing firms with indemnification against certain civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents, underwriters, dealers and remarketing firms, and their affiliates, may engage in transactions with, or perform services for, us in the ordinary course of business. This includes commercial banking and investment banking transactions.

#### Market-Making; Stabilization and Other Transactions

There is currently no market for any of the offered securities, other than our common stock, which is quoted on the Nasdaq Capital Market. If the offered securities are traded after their initial issuance, they may trade at a discount from their initial offering price, depending upon prevailing interest rates, the market for similar securities and other factors. While it is possible that an underwriter could inform us that it intends to make a market in the offered securities, such underwriter would not be obligated to do so, and any such market-making could be discontinued at any time without notice. Therefore, no assurance can be given as to whether an active trading market will develop for the offered securities. We have no current plans for listing of the debt securities, preferred stock, warrants or subscription rights on any securities exchange or quotation system; any such listing with respect to any particular debt securities, preferred stock, warrants or subscription rights will be described in the applicable prospectus supplement or other offering materials, as the case may be.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

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

#### **Fees and Commissions**

If 5% or more of the net proceeds of any offering of securities made under this prospectus will be received by a FINRA member participating in the offering or affiliates or associated persons of such FINRA member, the offering will be conducted in accordance with FINRA Rule 5121.

# **DESCRIPTION OF SECURITIES WE MAY OFFER**

#### General

This prospectus describes the general terms of our capital stock. The following description is not complete and may not contain all the information you should consider before investing in our capital stock. For a more detailed description of these securities, you should read the applicable provisions of Delaware law and our amended and restated certificate of incorporation, as amended, referred to herein as our certificate of incorporation, and our amended and restated bylaws, referred to herein as our bylaws. When we offer to sell a particular series of these securities, we will describe the specific terms of the series in a supplement to this prospectus. Accordingly, for a description of the terms of any series of securities, you must refer to both the prospectus supplement relating to that series and the description of the securities described in this prospectus. To the extent the information contained in the prospectus supplement differs from this summary description, you should rely on the information in the prospectus supplement.

The total number of shares of capital stock we are authorized to issue is 150,000,000 shares, of which (a) 100,000,000 are common stock and (b) 50,000,000 are preferred stock.

We, directly or through agents, dealers or underwriters designated from time to time, may offer, issue and sell, together or separately, up to \$30,000,000 in the aggregate of:

common stock;

preferred stock;

purchase contracts;

warrants to purchase our securities;

subscription rights to purchase our securities;

depositary shares;

secured or unsecured debt securities consisting of notes, debentures or other evidences of indebtedness which may be senior debt securities, senior subordinated debt securities or subordinated debt securities, each of which may be convertible into equity securities; or

units comprised of, or other combinations of, the foregoing securities.

We may issue the debt securities as exchangeable for or convertible into shares of common stock, preferred stock or other securities that may be sold by us pursuant to this prospectus or any combination of the foregoing. The preferred stock may also be exchangeable for and/or convertible into shares of common stock, another series of preferred stock or other securities that may be sold by us pursuant to this prospectus or any combination of the foregoing. When a

particular series of securities is offered, a supplement to this prospectus will be delivered with this prospectus, which will set forth the terms of the offering and sale of the offered securities.

Amended and Restated Certificate of Incorporation

On April 24, 2014, we filed an Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware, which was previously approved by our stockholders at our annual meeting held on February 6, 2014. The Amended and Restated Certificate of Incorporation, among other things, increased our authorized number of shares of common stock to 200,000,000 shares from 50,000,000 shares.

Additionally, on April 23, 2014, we filed a Certificate of Elimination with the Secretary of State of the State of Delaware eliminating our Series B Convertible Preferred Stock, Series E Convertible Preferred Stock and Series F Convertible Preferred Stock and returning them to authorized but undesignated shares of our preferred stock.

On March 4, 2016, the Company implemented a reverse stock split with a ratio of 1-for-19. The par value and other terms of the common stock were not affected by the reverse stock split. In addition, the amendment to the Company's certificate of incorporation that effected the reverse stock split simultaneously reduced the number of authorized shares of common stock from 200,000,000 to 100,000,000.

## **Common Stock**

As of January 8, 2018, there were 6,234,910 shares of common stock issued and 6,234,898 shares of common stock outstanding, held of record by approximately 121 stockholders. Subject to preferential rights with respect to any outstanding preferred stock, all outstanding shares of common stock are of the same class and have equal rights and attributes.

Subject to the rights of the preferred stock, holders of common stock are entitled to receive such dividends as are declared by our board of directors out of funds legally available for the payment of dividends. We presently intend to retain any earnings to fund the development of our business. Accordingly, we do not anticipate paying any dividends on our common stock for the foreseeable future. Any future determination as to declaration and payment of dividends will be made at the discretion of our board of directors.

In the event of the liquidation, dissolution, or winding up of the Company, each outstanding share of our common stock will be entitled to share equally in any of our assets remaining after payment of or provision for our debts and other liabilities.

Holders of common stock are entitled to one vote per share on matters to be voted upon by stockholders. There is no cumulative voting for the election of directors, which means that the holders of shares entitled to exercise more than fifty percent (50%) of the voting rights in the election of directors are able to elect all of the directors.
Holders of common stock have no preemptive rights to subscribe for or to purchase any additional shares of common stock or other obligations convertible into shares of common stock which we may issue after the date of this prospectus.
All of the outstanding shares of common stock are fully paid and non-assessable. Holders of our common stock are not liable for further calls or assessments.
The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.
Transfer Agent and Registrar
The transfer agent and registrar for our common stock is VStock Transfer, LLC, with an address at 18 Lafayette Place, Woodmere, NY 11598.
Listing
Our common stock is listed on the NASDAQ Capital Market under the symbol "SPEX". We have not applied to list our common stock on any other exchange or quotation system.

Limitations on Directors' Liability

Our certificate of incorporation and bylaws contain provisions indemnifying our directors and officers to the fullest extent permitted by Delaware law.

In addition, as permitted by Delaware law, our certificate of incorporation provides that no director will be liable to us or our stockholders for monetary damages for breach of the director's fiduciary duty as a director. The effect of this provision is to restrict our rights and the rights of our stockholders in derivative suits to recover monetary damages against a director for breach of the director's fiduciary duty as a director, except that a director will be personally liable for:

any breach of his or her duty of loyalty to us or our stockholders;

acts or omissions not in good faith which involve intentional misconduct or a knowing violation of law;

the payment of dividends or the redemption or purchase of stock in violation of Delaware law; or

any transaction from which the director derived an improper personal benefit.

This provision does not affect a director's liability under the federal securities laws.

To the extent that our directors, officers and controlling persons are indemnified under the provisions contained in our amended and restated certificate of incorporation or Delaware law against liabilities arising under the Securities Act, we have been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Provisions of our Certificate of Incorporation and Bylaws, our Shareholder Rights Plan, and Delaware Law that May Have an Anti-Takeover Effect

Certain provisions set forth in our certificate of incorporation and bylaws, our Amended and Restated Shareholder Rights Plan, and Delaware law could have the effect of discouraging potential acquisition proposals or making a tender offer or delaying or preventing a change in control, including changes a stockholder might consider favorable. Such provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management.

Certificate of Incorporation and Bylaws

In particular, our certificate of incorporation and bylaws, among other things:

authorize our board of directors to issue, without further action by the stockholders, up to 50,000,000 shares of undesignated preferred stock;

provide that stockholders must provide advance notice to nominate persons for election to our board of directors or submit proposals for consideration at stockholder meetings;

specify that special meetings of our stockholders can be called only by our board of directors or by any officer instructed by the board of directors to a call a special meeting;

provide that vacancies on the board of directors may be filled by a majority of directors in office, although less than a quorum, or by the sole remaining director; and

provide the board of directors with the ability to alter the bylaws without stockholder approval.

Shareholder Rights Plan

On January 1, 2013, and as amended and restated on June 9, 2017, we adopted a stockholder rights plan in which rights to purchase shares of Series A Preferred Stock were distributed as a dividend at the rate of one right for each share of common stock. The rights are designed to guard against partial tender offers and other abusive and coercive tactics that might be used in an attempt to gain control of Spherix or to deprive our stockholders of their interest in the long-term value of Spherix. These rights seek to achieve these goals by forcing a potential acquirer to negotiate with our board of directors (or go to court to try to force the Board of Directors to redeem the rights), because only the Board of Directors can redeem the rights and allow the potential acquirer to acquire our shares without suffering very significant dilution. However, these rights also could deter or prevent transactions that stockholders deem to be in their interests, and could reduce the price that investors or an acquirer might be willing to pay in the future for shares of our common stock.

Each right entitles the registered holder to purchase one nineteen-hundredth of a share (a "Unit") of our Series A Preferred Stock. Each Unit of Series A Preferred Stock will be entitled to an aggregate dividend of 100 times the dividend declared per share of common stock. In the event of liquidation, the holders of the Units of Series A Preferred Stock will be entitled to an aggregate payment of 100 times the payment made per share of common stock. Each Unit of Series A Preferred Stock will have 100 votes, voting together with the common stock. Finally, in the event of any merger, consolidation or other transaction in which shares of common stock are exchanged, each Unit of Series A Preferred Stock will be entitled to receive 100 times the amount received per share of common stock. These rights are protected by customary anti-dilution provisions.

The rights will be exercisable only if a person or group acquires ten percent (10%) or more of our common stock (subject to certain exceptions stated in the plan) or announces a tender offer the consummation of which would result in ownership by a person or group of ten percent (10%) or more of our common stock. Our board of directors may redeem the rights at a price of \$0.001 per right. The stockholder rights plan provides that the rights will expire at the close of business on December 31, 2020 unless the expiration date is extended or unless the rights are earlier redeemed or exchanged by the Company.

Delaware Takeover Statute

Section 203 of the DGCL prohibits a Delaware corporation that is a public company from engaging in any "business combination" (as defined below) with any "interested stockholder" (defined generally as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with such entity or person) for a period of three years following the date that such stockholder became an interested stockholder, unless:

before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

upon consummation 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, excluding for purposes of determining the number of shares outstanding those shares owned by persons who are directors and also officers and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or subsequent to such date, the business combination is approved by the 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 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 of the DCGL defines "business combination" to include:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

#### **Preferred Stock**

Our amended and restated certificate of incorporation empowers our board of directors, without action by our shareholders, to issue up to 50,000,000 shares of preferred stock from time to time in one or more series, which preferred stock may be offered by this prospectus and supplements thereto.

The Delaware General Corporation Law provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes in the rights of holders of that preferred stock. This right is in addition to any voting rights provided for in the applicable certificate of designation.

We will fix the rights, preferences, privileges and restrictions of the preferred stock of each series in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. This description will include any or all of the following, as required:

the title and stated value;
the number of shares we are offering;
the liquidation preference per share;
the purchase price;
the dividend rate, period and payment date and method of calculation for dividends;
whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
any contractual limitations on our ability to declare, set aside or pay any dividends;
the procedures for any auction and remarketing, if any;

the provisions for a sinking fund, if any; the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights; any listing of the preferred stock on any securities exchange or market; whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period; whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period; voting rights, if any, of the preferred stock; preemptive rights, if any; restrictions on transfer, sale or other assignment, if any; whether interests in the preferred stock will be represented by depositary shares; a discussion of any material or special United States federal income tax considerations applicable to the preferred stock; the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

If we issue shares of preferred stock under this prospectus, after receipt of payment therefor, the shares will be fully paid and non-assessable.

any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our Company or make removal of management more difficult. Additionally, the issuance of preferred stock could have the effect of decreasing the market price of our common stock.

### Existing Preferred Stock

The Company had designated separate series of its capital stock as of September 30, 2017, December 31, 2016 and December 31, 2015 as summarized below:

Number of Shares Issued
and Outstanding as of

	Septem 30, 2017	bDecember 31, 2016	December 31, 2015	Par Value	Conversion Ratio
Series "A"		_	_	\$0.0001	N/A
Series "C"		_		0.0001	0.05:1
Series "D"	4,725	4,725	4,725	0.0001	0.53:1
Series "D-1	"834	834	834	0.0001	0.53:1
Series "F-1"	"	_		0.0001	0.05:1
Series "H"	_	_	381,967	0.0001	0.53:1
Series "I"		_		0.0001	1.05:1
Series "J"		_		0.0001	0.05:1
Series "K"			1,240	0.0001	263.16:1

On April 23, 2014, the Company filed a Certificate of Elimination with the Secretary of State of the State of Delaware eliminating its Series B Convertible Preferred Stock, Series E Convertible Preferred Stock and Series F Convertible Preferred Stock and returning them to authorized but undesignated shares of preferred stock. No shares of the foregoing series of preferred stock are outstanding as of the date hereof.

The Company previously designated, authorized and issued shares of Series C Preferred Stock, Series F-1 Preferred Stock, Series I Preferred Stock and Series J Preferred Stock that have since been converted into shares of the Company's common stock or have been cancelled and are no longer outstanding.

#### Series A Preferred Stock

Our board of directors has designated 500,000 shares of our preferred stock as Series A Participating Preferred Stock ("Series A Preferred Stock").

On January 1, 2013, and as amended and restated on June 9, 2017, we adopted a stockholder rights plan in which rights to purchase shares of Series A Preferred Stock were distributed as a dividend at the rate of one right for each share of common stock. The rights are designed to guard against partial tender offers and other abusive and coercive tactics that might be used in an attempt to gain control of Spherix or to deprive our stockholders of their interest in the long-term value of Spherix. These rights seek to achieve these goals by forcing a potential acquirer to negotiate with our board of directors (or go to court to try to force the Board of Directors to redeem the rights), because only the Board of Directors can redeem the rights and allow the potential acquirer to acquire our shares without suffering very significant dilution. However, these rights also could deter or prevent transactions that stockholders deem to be in their interests, and could reduce the price that investors or an acquirer might be willing to pay in the future for shares of our common stock.

Each right entitles the registered holder to purchase one one-hundredth of a share (a "Unit") of our Series A Preferred Stock. Each Unit of Series A Preferred Stock will be entitled to an aggregate dividend of 100 times the dividend declared per share of common stock. In the event of liquidation, the holders of the Units of Series A Preferred Stock will be entitled to an aggregate payment of 100 times the payment made per share of common stock. Each Unit of Series A Preferred Stock will have 100 votes, voting together with the common stock. Finally, in the event of any merger, consolidation or other transaction in which shares of common stock are exchanged, each Unit of Series A Preferred Stock will be entitled to receive 100 times the amount received per share of common stock. These rights are protected by customary anti-dilution provisions.

The rights will be exercisable only if a person or group acquires ten percent (10%) or more of our common stock (subject to certain exceptions stated in the plan) or announces a tender offer the consummation of which would result in ownership by a person or group of ten percent (10%) or more of our common stock. Our board of directors may redeem the rights at a price of \$0.001 per right. The rights will expire at the close of business on December 31, 2020 unless the expiration date is extended or unless the rights are earlier redeemed or exchanged by the Company.

As of September 30, 2017, December 2016, and December 2015, no shares of Series A Preferred Stock were issued and outstanding.

### Series D Convertible Preferred Stock

In connection with the acquisition of North South's patent portfolio in September 2013, the Company issued 1,379,685 shares of its Series D Convertible Preferred Stock ("Series D Preferred Stock") to the stockholders of North South. Each share of Series D Preferred Stock has a stated value of \$0.0001 per share and is convertible into ten-nineteenths of a share of common stock. Upon the liquidation, dissolution or winding up of the Company's business, each holder of Series D Preferred Stock shall be entitled to receive, for each share of Series D Preferred Stock held, a preferential amount in cash equal to the greater of (i) the stated value or (ii) the amount the holder would receive as a holder of common stock on an "as converted" basis. Each holder of Series D Preferred Stock shall be entitled to vote on all matters submitted to its stockholders and shall be entitled to such number of votes equal to the number of shares of common stock such shares of Series D Preferred Stock are convertible into at such time, taking into account the beneficial ownership limitations set forth in the governing Certificate of Designation and the conversion limitations described below. At no time may shares of Series D Preferred Stock be converted if such conversion would cause the holder to hold in excess of 4.99% of issued and outstanding common stock, subject to an increase in such limitation up to 9.99% of the issued and outstanding common stock on 61 days' written notice to the Company. The conversion ratio of the Series D Preferred Stock is subject to adjustment in the event of stock splits, stock dividends, combination of shares and similar recapitalization transactions.

As of September 30, 2017, December 2016, and December 2015, 4,725 shares of Series D Preferred Stock remained issued and outstanding.

Series D-1 Convertible Preferred Stock

The Company's Series D-1 Convertible Preferred Stock ("Series D-1 Preferred Stock") was established on November 22, 2013. Each share of Series D-1 Preferred Stock has a stated value of \$0.0001 per share and is convertible into ten-nineteenths of a share of common stock. Upon the liquidation, dissolution or winding up of the Company's business, each holder of Series D-1 Preferred Stock shall be entitled to receive, for each share of Series D-1 Preferred Stock held, a preferential amount in cash equal to the greater of (i) the stated value or (ii) the amount the holder would receive as a holder of common stock on an "as converted" basis. Each holder of Series D-1 Preferred Stock shall be entitled to vote on all matters submitted to the Company's stockholders and shall be entitled to such number of votes equal to the number of shares of common stock such shares of Series D-1 Preferred Stock are convertible into at such time, taking into account the beneficial ownership limitations set forth in the governing Certificate of Designation. At no time may shares of Series D-1 Preferred Stock be converted if such conversion would cause the holder to hold in excess of 9.99% of issued and outstanding common stock. The conversion ratio of the Series D-1 Preferred Stock is subject to adjustment in the event of stock splits, stock dividends, combination of shares and similar recapitalization transactions. The Company commenced an exchange with holders of Series D Convertible Preferred Stock pursuant to which the holders of the Company's outstanding shares of Series D Preferred Stock acquired in the Merger could exchange such shares for shares of the Company's Series D-1 Preferred Stock on a one-for-one basis.

As of September 30, 2017, December 2016, and December 2015, 834 shares of Series D-1 Preferred Stock remained issued and outstanding.

#### **Purchase Contracts**

We may issue purchase contracts, representing contracts obligating holders to purchase from us, and us to sell to the holders, a specific or varying number of common stock, preferred stock, warrants, depositary shares, debt securities, warrants or any combination of the above, at a future date or dates. Alternatively, the purchase contracts may obligate us to purchase from holders, and obligate holders to sell to us, a specific or varying number of common stock, preferred stock, warrants, depositary shares, debt securities, or any combination of the above. The price of the securities and other property subject to the purchase contracts may be fixed at the time the purchase contracts are issued or may be determined by reference to a specific formula set forth in the purchase contracts. The purchase contracts may be issued separately or as a part of a unit that consists of (a) a purchase contract and (b) one or more of the other securities that may be sold by us pursuant to this prospectus or any combination of the foregoing, which may secure the holders' obligations to purchase the securities under the purchase contract. The purchase contracts may require us to make periodic payments to the holders or require the holders to make periodic payments to us. These payments may be unsecured or prefunded and may be paid on a current or on a deferred basis. The purchase contracts may require holders to secure their obligations under the contracts in a manner specified in the applicable prospectus supplement.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, forms of the purchase contracts and purchase contract agreement, if any. The applicable prospectus supplement will describe the terms of any purchase contracts in respect of which this prospectus is being delivered, including, to the extent applicable, the following:

whether the purchase contracts obligate the holder or us to purchase or sell, or both purchase and sell, the securities subject to purchase under the purchase contract, and the nature and amount of each of those securities, or the method of determining those amounts;

whether the purchase contracts are to be prepaid or not;

whether the purchase contracts are to be settled by delivery, or by reference or linkage to the value, performance or level of the securities subject to purchase under the purchase contract;

any acceleration, cancellation, termination or other provisions relating to the settlement of the purchase contracts; and

whether the purchase contracts will be issued in fully registered or global form.

#### Warrants

We may issue warrants to purchase our securities or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities that may be sold by us pursuant to this prospectus or any combination of the foregoing and may be attached to, or separate from, such securities. To the extent warrants that we issue are to be publicly-traded, each series of such warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, forms of the warrant and warrant agreement, if any. The prospectus supplement relating to any warrants that we may offer will contain the specific terms of the warrants and a description of the material provisions of the applicable warrant agreement, if any. These terms may include the following:

the title of the warrants;

the price or prices at which the warrants will be issued;

the designation, amount and terms of the securities or other rights for which the warrants are exercisable;

the designation and terms of the other securities, if any, with which the warrants are to be issued and the number of warrants issued with each other security;

the aggregate number of warrants;

any provisions for adjustment of the number or amount of securities receivable upon exercise of the warrants or the exercise price of the warrants;

the price or prices at which the securities or other rights purchasable upon exercise of the warrants may be purchased;

if applicable, the date on and after which the warrants and the securities or other rights purchasable upon exercise of the warrants will be separately transferable;

a discussion of any material U.S. federal income tax considerations applicable to the exercise of the warrants;

the date on which the right to exercise the warrants will commence, and the date on which the right will expire;

the maximum or minimum number of warrants that may be exercised at any time;

information with respect to book-entry procedures, if any; and

any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Exercise of Warrants. Each warrant will entitle the holder of warrants to purchase the amount of securities or other rights, at the exercise price stated or determinable in the prospectus supplement for the warrants. Warrants may be exercised at any time up to the close of business on the expiration date shown in the applicable prospectus supplement, unless otherwise specified in such prospectus supplement. After the close of business on the expiration date, if applicable, unexercised warrants will become void. Warrants may be exercised in the manner described in the applicable prospectus supplement. When the warrant holder makes the payment and properly completes and signs the warrant certificate at the corporate trust office of the warrant agent, if any, or any other office indicated in the prospectus supplement, we will, as soon as possible, forward the securities or other rights that the warrant holder has purchased. If the warrant holder exercises less than all of the warrants represented by the warrant certificate, we will issue a new warrant certificate for the remaining warrants.

**Existing Warrants** 

A summary of warrant activity for the nine months ended September 30, 2017 is presented below:

Warrants

Weighted
Average
Exercise
Price

Total
Intrinsic
Value

Average
Remaining
Contractual
Life
(in years)

Weighted

Outstanding as of December 31, 2016	1,250,311 \$ 9.21	\$ 	3.91
Expired	(557)		
Outstanding as of September 30, 2017	1,249,754 \$ 8.98		3.17
Exercisable as of September 30, 2017	1,249,754 \$ 8.98	\$ 	3.17

#### **Subscription Rights**

We may issue rights to purchase our securities. The rights may or may not be transferable by the persons purchasing or receiving the rights. In connection with any rights offering, we may enter into a standby underwriting or other arrangement with one or more underwriters or other persons pursuant to which such underwriters or other persons would purchase any offered securities remaining unsubscribed for after such rights offering. In connection with a rights offering to holders of our capital stock a prospectus supplement will be distributed to such holders on the record date for receiving rights in the rights offering set by us.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, forms of the subscription rights, standby underwriting agreement or other agreements, if any. The prospectus supplement relating to any rights that we offer will include specific terms relating to the offering, including, among other matters:

the date of determining the security holders entitled to the rights distribution;

the aggregate number of rights issued and the aggregate amount of securities purchasable upon exercise of the rights;

the exercise price;

the conditions to completion of the rights offering;

the date on which the right to exercise the rights will commence and the date on which the rights will expire; and

any applicable federal income tax considerations.

Each right would entitle the holder of the rights to purchase the principal amount of securities at the exercise price set forth in the applicable prospectus supplement. Rights may be exercised at any time up to the close of business on the expiration date for the rights provided in the applicable prospectus supplement. After the close of business on the expiration date, all unexercised rights will become void.

Holders may exercise rights as described in the applicable prospectus supplement. Upon receipt of payment and the rights certificate properly completed and duly executed at the corporate trust office of the rights agent, if any, or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the securities purchasable upon exercise of the rights. If less than all of the rights issued in any rights offering are exercised, we may offer any unsubscribed securities directly to persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby underwriting arrangements, as described in the applicable prospectus supplement.

### **Depositary Shares**

General. We may offer fractional shares of preferred stock, rather than full shares of preferred stock. If we decide to offer fractional shares of our preferred stock, we will issue receipts for depositary shares. Each depositary share will represent a fraction of a share of a particular series of our preferred stock, and the applicable prospectus supplement will indicate that fraction. The shares of preferred stock represented by depositary shares will be deposited under a deposit agreement between us and a depositary that is a bank or trust company that meets certain requirements and is selected by us. The depositary will be specified in the applicable prospectus supplement. Each owner of a depositary share will be entitled to all of the rights and preferences of the preferred stock represented by the depositary share. The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Depositary receipts will be distributed to those persons purchasing the fractional shares of our preferred stock in accordance with the terms of the offering. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, forms of the deposit agreement, form of certificate of designation of underlying preferred stock, form of depositary receipts and any other related agreements.

*Dividends and Other Distributions*. The depositary will distribute all cash dividends or other cash distributions received by it in respect of the preferred stock to the record holders of depositary shares relating to such preferred shares in proportion to the numbers of depositary shares held on the relevant record date.

In the event of a distribution other than in cash, the depositary will distribute securities or property received by it to the record holders of depositary shares in proportion to the numbers of depositary shares held on the relevant record date, unless the depositary determines that it is not feasible to make such distribution. In that case, the depositary may make the distribution by such method as it deems equitable and practicable. One such possible method is for the depositary to sell the securities or property and then distribute the net proceeds from the sale as provided in the case of a cash distribution.

*Redemption of Depositary Shares.* Whenever we redeem the preferred stock, the depositary will redeem a number of depositary shares representing the same number of shares of preferred stock so redeemed. If fewer than all of the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot, pro rata or by any other equitable method as the depositary may determine.

Voting of Underlying Shares. Upon receipt of notice of any meeting at which the holders of our preferred stock of any series are entitled to vote, the depositary will mail the information contained in the notice of the meeting to the record holders of the depositary shares relating to that series of preferred stock. Each record holder of the depositary shares on the record date will be entitled to instruct the depositary as to the exercise of the voting rights represented by the number of shares of preferred stock underlying the holder's depositary shares. The depositary will endeavor, to the extent it is practical to do so, to vote the number of whole shares of preferred stock underlying such depositary shares in accordance with such instructions. We will agree to take all action that the depositary may deem reasonably necessary in order to enable the depositary to do so. To the extent the depositary does not receive specific instructions from the holders of depositary shares relating to such preferred shares, it will abstain from voting such shares of preferred stock.

Withdrawal of Shares. Upon surrender of depositary receipts representing any number of whole shares at the depositary's office, unless the related depositary shares previously have been called for redemption, the holder of the depositary shares evidenced by the depositary receipts will be entitled to delivery of the number of whole shares of the related series of preferred stock and all money and other property, if any, underlying such depositary shares. However, once such an exchange is made, the preferred stock cannot thereafter be re-deposited in exchange for depositary shares. Holders of depositary shares will be entitled to receive whole shares of the related series of preferred stock on the basis set forth in the applicable prospectus supplement. If the depositary receipts delivered by the holder evidence a number of depositary shares representing more than the number of whole shares of preferred stock of the related series to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of depositary shares.

Amendment and Termination of Depositary Agreement. The form of depositary receipt evidencing the depositary shares and any provision of the applicable depositary agreement may at any time be amended by agreement between us and the depositary. We may, with the consent of the depositary, amend the depositary agreement from time to time in any manner that we desire. However, if the amendment would materially and adversely alter the rights of the existing holders of depositary shares, the amendment would need to be approved by the holders of at least a majority of the depositary shares then outstanding.

The depositary agreement may be terminated by us or the depositary if:

all outstanding depositary shares have been redeemed; or

there has been a final distribution in respect of the shares of preferred stock of the applicable series in connection with our liquidation, dissolution or winding up and such distribution has been made to the holders of depositary receipts.

Resignation and Removal of Depositary. The depositary may resign at any time by delivering to us notice of its election to do so. We may remove a depositary at any time. Any resignation or removal will take effect upon the appointment of a successor depositary and its acceptance of appointment.

Charges of Depositary. We will pay all transfer and other taxes and governmental charges arising solely from the existence of any depositary arrangements. We will pay all charges of each depositary in connection with the initial deposit of the preferred shares of any series, the initial issuance of the depositary shares, any redemption of such preferred shares and any withdrawals of such preferred shares by holders of depositary shares. Holders of depositary shares will be required to pay any other transfer taxes.

*Notices*. Each depositary will forward to the holders of the applicable depositary shares all notices, reports and communications from us which are delivered to such depositary and which we are required to furnish the holders of the preferred stock represented by such depositary shares.

*Miscellaneous*. The depositary agreement may contain provisions that limit our liability and the liability of the depositary to the holders of depositary shares. Both the depositary and we are also entitled to an indemnity from the holders of the depositary shares prior to bringing, or defending against, any legal proceeding. We or any depositary may rely upon written advice of counsel or accountants, or information provided by persons presenting preferred shares for deposit, holders of depositary shares or other persons believed by us to be competent and on documents believed by us or them to be genuine.

### **Debt Securities**

As used in this prospectus, the term "debt securities" means the debentures, notes, bonds and other evidences of indebtedness that we may issue from time to time. The debt securities will either be senior debt securities, senior subordinated debt or subordinated debt securities. We may also issue convertible debt securities. Debt securities may be issued under an indenture (which we refer to herein as an Indenture), which are contracts entered into between us and a trustee to be named therein. The Indenture has been filed as an exhibit to the registration statement of which this prospectus forms a part. We may issue debt securities and incur additional indebtedness other than through the offering of debt securities pursuant to this prospectus. It is likely that convertible debt securities will not be issued under an Indenture.

The debt securities may be fully and unconditionally guaranteed on a secured or unsecured senior or subordinated basis by one or more guarantors, if any. The obligations of any guarantor under its guarantee will be limited as necessary to prevent that guarantee from constituting a fraudulent conveyance under applicable law. In the event that any series of debt securities will be subordinated to other indebtedness that we have outstanding or may incur, the terms of the subordination will be set forth in the prospectus supplement relating to the subordinated debt securities.

We may issue debt securities from time to time in one or more series, in each case with the same or various maturities, at par or at a discount. Unless indicated in a prospectus supplement, we may issue additional debt securities of a particular series without the consent of the holders of the debt securities of such series outstanding at the time of the issuance. Any such additional debt securities, together with all other outstanding debt securities of that series, will constitute a single series of debt securities under the applicable Indenture and will be equal in ranking.

Should an Indenture relate to unsecured indebtedness, in the event of a bankruptcy or other liquidation event involving a distribution of assets to satisfy our outstanding indebtedness or an event of default under a loan agreement relating to secured indebtedness of our company or its subsidiaries, the holders of such secured indebtedness, if any, would be entitled to receive payment of principal and interest prior to payments on the unsecured indebtedness issued under an Indenture.

Each prospectus supplement will describe the terms relating to the specific series of debt securities. These terms will include some or all of the following:

the title of debt securities and whether the debt securities are senior or subordinated;

any limit on the aggregate principal amount of debt securities of such series;

the percentage of the principal amount at which the debt securities of any series will be issued;

the ability to issue additional debt securities of the same series;

the purchase price for the debt securities and the denominations of the debt securities;

the specific designation of the series of debt securities being offered;

the maturity date or dates of the debt securities and the date or dates upon which the debt securities are payable and the rate or rates at which the debt securities of the series shall bear interest, if any, which may be fixed or variable, or the method by which such rate shall be determined;

the basis for calculating interest;

the date or dates from which any interest will accrue or the method by which such date or dates will be determined;

the duration of any deferral period, including the period during which interest payment periods may be extended;

whether the amount of payments of principal of (and premium, if any) or interest on the debt securities may be determined with reference to any index, formula or other method, such as one or more currencies, commodities, equity indices or other indices, and the manner of determining the amount of such payments;

the dates on which we will pay interest on the debt securities and the regular record date for determining who is entitled to the interest payable on any interest payment date;

the place or places where the principal of (and premium, if any) and interest on the debt securities will be payable, where any securities may be surrendered for registration of transfer, exchange or conversion, as applicable, and notices and demands may be delivered to or upon us pursuant to the applicable Indenture;

the rate or rates of amortization of the debt securities;

any terms for the attachment to the debt securities of warrants, options or other rights to purchase or sell our securities:

if the debt securities will be secured by any collateral and, if so, a general description of the collateral and the terms and provisions of such collateral security, pledge or other agreements;

if we possess the option to do so, the periods within which and the prices at which we may redeem the debt securities, in whole or in part, pursuant to optional redemption provisions, and the other terms and conditions of any such provisions;

our obligation or discretion, if any, to redeem, repay or purchase debt securities by making periodic payments to a sinking fund or through an analogous provision or at the option of holders of the debt securities, and the period or periods within which and the price or prices at which we will redeem, repay or purchase the debt securities, in whole or in part, pursuant to such obligation, and the other terms and conditions of such obligation;

the terms and conditions, if any, regarding the option or mandatory conversion or exchange of debt securities;

the period or periods within which, the price or prices at which and the terms and conditions upon which any debt securities of the series may be redeemed, in whole or in part at our option and, if other than by a board resolution, the manner in which any election by us to redeem the debt securities shall be evidenced;

any restriction or condition on the transferability of the debt securities of a particular series;

the portion, or methods of determining the portion, of the principal amount of the debt securities which we must pay upon the acceleration of the maturity of the debt securities in connection with any event of default;

the currency or currencies in which the debt securities will be denominated and in which principal, any premium and any interest will or may be payable or a description of any units based on or relating to a currency or currencies in which the debt securities will be denominated;

provisions, if any, granting special rights to holders of the debt securities upon the occurrence of specified events;

any deletions from, modifications of or additions to the events of default or our covenants with respect to the applicable series of debt securities, and whether or not such events of default or covenants are consistent with those contained in the applicable Indenture;

any limitation on our ability to incur debt, redeem stock, sell our assets or other restrictions;

the application, if any, of the terms of the applicable Indenture relating to defeasance and covenant defeasance (which terms are described below) to the debt securities;

what subordination provisions will apply to the debt securities;

the terms, if any, upon which the holders may convert or exchange the debt securities into or for our securities or property;

whether we are issuing the debt securities in whole or in part in global form;

any change in the right of the trustee or the requisite holders of debt securities to declare the principal amount thereof due and payable because of an event of default;

the depositary for global or certificated debt securities, if any;

any material federal income tax consequences applicable to the debt securities, including any debt securities denominated and made payable, as described in the prospectus supplements, in foreign currencies, or units based on or related to foreign currencies;

any right we may have to satisfy, discharge and defease our obligations under the debt securities, or terminate or eliminate restrictive covenants or events of default in the Indentures, by depositing money or U.S. government obligations with the trustee of the Indentures;

the names of any trustees, depositories, authenticating or paying agents, transfer agents or registrars or other agents with respect to the debt securities;

to whom any interest on any debt security shall be payable, if other than the person in whose name the security is registered, on the record date for such interest, the extent to which, or the manner in which, any interest payable on a temporary global debt security will be paid;

if the principal of or any premium or interest on any debt securities is to be payable in one or more currencies or currency units other than as stated, the currency, currencies or currency units in which it shall be paid and the periods within and terms and conditions upon which such election is to be made and the amounts payable (or the manner in which such amount shall be determined);

the portion of the principal amount of any debt securities which shall be payable upon declaration of acceleration of the maturity of the debt securities pursuant to the applicable Indenture;

if the principal amount payable at the stated maturity of any debt security of the series will not be determinable as of any one or more dates prior to the stated maturity, the amount which shall be deemed to be the principal amount of such debt securities as of any such date for any purpose, including the principal amount thereof which shall be due and payable upon any maturity other than the stated maturity or which shall be deemed to be outstanding as of any date prior to the stated maturity (or, in any such case, the manner in which such amount deemed to be the principal amount shall be determined); and

any other specific terms of the debt securities, including any modifications to the events of default under the debt securities and any other terms which may be required by or advisable under applicable laws or regulations.

Unless otherwise specified in the applicable prospectus supplement, we do not anticipate the debt securities will be listed on any securities exchange. Holders of the debt securities may present registered debt securities for exchange or transfer in the manner described in the applicable prospectus supplement. Except as limited by the applicable Indenture, we will provide these services without charge, other than any tax or other governmental charge payable in connection with the exchange or transfer.

Debt securities may bear interest at a fixed rate or a variable rate as specified in the prospectus supplement. In addition, if specified in the prospectus supplement, we may sell debt securities bearing no interest or interest at a rate that at the time of issuance is below the prevailing market rate, or at a discount below their stated principal amount. We will describe in the applicable prospectus supplement any special federal income tax considerations applicable to these discounted debt securities.

We may issue debt securities with the principal amount payable on any principal payment date, or the amount of interest payable on any interest payment date, to be determined by referring to one or more currency exchange rates, commodity prices, equity indices or other factors. Holders of such debt securities may receive a principal amount on any principal payment date, or interest payments on any interest payment date, that are greater or less than the amount of principal or interest otherwise payable on such dates, depending upon the value on such dates of applicable currency, commodity, equity index or other factors. The applicable prospectus supplement will contain information as to how we will determine the amount of principal or interest payable on any date, as well as the currencies, commodities, equity indices or other factors to which the amount payable on that date relates and certain additional tax considerations.

#### Units

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may evidence each series of units by unit certificates that we may issue under a separate agreement. We may enter into unit agreements with a unit agent. Each unit agent, if any, may be a bank or trust

company that we select. We will indicate the name and address of the unit agent, if any, in the applicable prospectus supplement relating to a particular series of units. Specific unit agreements, if any, will contain additional important terms and provisions. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report that we file with the SEC, the form of unit and the form of each unit agreement, if any, relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable

the title of the series of units;

identification and description of the separate constituent securities comprising the units;

the price or prices at which the units will be issued;

the date, if any, on and after which the constituent securities comprising the units will be separately transferable;

a discussion of certain United States federal income tax considerations applicable to the units; and

any other material terms of the units and their constituent securities.

### FORMS OF SECURITIES

Each security may be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the debt securities, warrants or units represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

### Registered Global Securities

We may issue the securities in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depositary for the registered global security, the nominees of the depositary or any successors of the depositary or those nominees.

The specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a registered global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary, or its nominee, is the registered owner of a registered global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, warrant agreement or unit agreement.

Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement or unit agreement. Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depositary for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant agreement or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement or unit agreement, the depositary for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Payments to holders with respect to securities represented by a registered global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the registered global security. None of the Company, the trustees, the warrant agents, the unit agents or any other agent of the Company, agent of the trustees, the warrant agents or unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other payment or distribution to holders of that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in "street name," and will be the responsibility of those participants.

If the depositary for any of these securities represented by a registered global security is at any time unwilling or unable to continue as depositary or ceases to be a clearing agency registered under the Exchange Act and a successor depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depositary. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depositary gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depositary's instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depositary.

### **LEGAL MATTERS**

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities offered by this prospectus will be passed upon for us by Ellenoff Grossman & Schole LLP, New York, New York. If legal matters in connection with offerings made by this prospectus are passed on by counsel for the underwriters, dealers or agents, if any, that counsel will be named in the applicable prospectus supplement.

#### **EXPERTS**

The consolidated financial statements of Spherix Incorporated and subsidiaries as of and for the years ended December 31, 2016 and 2015 have been incorporated by reference in the registration statement in reliance upon the report of Marcum LLP, independent registered public accounting firm, and upon the authority of said firm as experts in accounting and auditing.

#### WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual, quarter and periodic reports, proxy statements and other information with the Securities and Exchange Commission using the Commission's EDGAR system. You may inspect these documents and copy information from them at the Commission's offices at public reference room at 100 F Street, NE, Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The Commission maintains a web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Commission. The address of such site is http://www.sec.gov.

### INCORPORATION OF DOCUMENTS BY REFERENCE

We are "incorporating by reference" in this prospectus certain documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information in the documents incorporated by reference is considered to be part of this prospectus. Statements contained in documents that we file with the SEC and that are incorporated by reference in this prospectus will automatically update and supersede

information contained in this prospectus, including information in previously filed documents or reports that have been incorporated by reference in this prospectus, to the extent the new information differs from or is inconsistent with the old information. We have filed or may file the following documents with the SEC and they are incorporated herein by reference as of their respective dates of filing.

- 1. Our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 31, 2017;
- 2. Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 September 30, 2017, as filed with the SEC on May 12, 2017, August 11, 2017 and November 14, 2017, respectively;
- 3. Our Current Reports on Form 8-K filed with the SEC on February 9, 2017, March 15, 2017, June 12, 2017, June 20, 2017, July 3, 2017, July 24, 2017, October 25, 2017 and December 13, 2017; and
  - 4. The description of certain capital stock contained in our Registration Statement 8-A filed on January 30, 2013, as amended on June 12, 2017 and as it may further be amended from time to time.

All documents that we filed with the SEC pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act subsequent to the date of this registration statement and prior to the filing of a post-effective amendment to this registration statement that indicates that all securities offered under this prospectus have been sold, or that deregisters all securities then remaining unsold, will be deemed to be incorporated in this registration statement by reference and to be a part hereof from the date of filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus shall be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus, or in any subsequently filed document that also is deemed to be incorporated by reference in this prospectus, modifies, supersedes or replaces such statement. Any statement so modified, superseded or replaced shall not be deemed, except as so modified, superseded or replaced, to constitute a part of this prospectus. None of the information that we disclose under Items 2.02 or 7.01 of any Current Report on Form 8-K or any corresponding information, either furnished under Item 9.01 or included as an exhibit therein, that we may from time to time furnish to the SEC will be incorporated by reference into, or otherwise included in, this prospectus, except as otherwise expressly set forth in the relevant document. Subject to the foregoing, all information appearing in this prospectus is qualified in its entirety by the information appearing in the documents incorporated by reference.

You may requests, orally or in writing, a copy of these documents, which will be provided to you at no cost (other than exhibits, unless such exhibits are specifically incorporate by reference), by contacting Anthony Hayes, c/o Spherix Corporation, at Spherix Incorporated, at One Rockefeller Plaza, 11th Fl., New York, NY 10020. Our telephone number is (212) 745-1374. Information about us is also available at our website at <a href="http://www.spherix.com">http://www.spherix.com</a>. However, the information in our website is not a part of this prospectus and is not incorporated by reference.

#### **PART II**

### INFORMATION NOT REQUIRED IN PROSPECTUS

### Item 14. Other Expenses of Issuance and Distribution.

The Company is paying all expenses of the offering. The following table sets forth all expenses to be paid by the registrant. All amounts shown are estimates except for the registration fee.

SEC registration fee	\$3,735
Printing	*
Legal fees and expenses	\$50,000
Accounting fees and expenses	\$3,800
Trustees' Fees and Expenses	*
Warrant Agent Fees and Expenses	*
Miscellaneous	*
Total	\$57,535

<sup>\*</sup>These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time. The applicable prospectus supplement will set forth the estimated amount of expenses of any offering of securities.

#### Item 15. Indemnification of Directors and Officers.

Under Section 145 of the DGCL, a corporation may indemnify its directors, officers, employees and agents and its former directors, officers, employees and agents and those who serve, at the corporation's request, in such capacities with another enterprise, against expenses (including attorney's fees), as well as judgments, fines and settlements, actually and reasonably incurred in connection with the defense of any action, suit or proceeding (other than an action by or in the right of the corporation) in which they or any of them were or are made parties or are threatened to be made parties by reason of their serving or having served in such capacity. The DGCL provides, however, that such person must have 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, in the case of a criminal action, such person must have had no reasonable cause to believe his or her conduct was unlawful. In addition, the DGCL does not permit indemnification in an action or suit by or in the right of the corporation, where such person has been adjudged liable to the corporation for negligence or misconduct in the performance of his/her duty to the corporation, unless, and only to the extent that, a court determines that such person fairly and reasonably is entitled to indemnity for costs the court deems proper in light of

liability adjudication. Indemnity is mandatory to the extent a claim, issue or matter has been successfully defended.

Section 102(b)(7) of the DGCL permits a corporation to include in its certificate of incorporation a provision eliminating or limiting the personal liability of a director to the corporation or its shareholders for monetary damages for breach of fiduciary duty as a director, provided that such provision 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) under Section 174 of the DGCL (relating to unlawful payment of dividends and unlawful stock purchase or redemption) or (iv) for any transaction from which the director derived an improper personal benefit.

Article XIII of the bylaws of the Company contains provisions which are designed to provide mandatory indemnification of directors and officers of the Company to the full extent permitted by law, as now in effect or later amended. The bylaws further provide that, if and to the extent required by the DGCL, an advance payment of expenses to a director or officer of the Company that is entitled to indemnification will only be made upon delivery to the Company of an undertaking, by or on behalf of the director or officer, to repay all amounts so advanced if it is ultimately determined that such director is not entitled to indemnification.

#### Item 16. Exhibits.

The following exhibits are filed with this Registration Statement.

The agreements included or incorporated by reference as exhibits to this registration statement contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties were made solely for the benefit of the other parties to the applicable agreement and (i) were not intended to be treated as categorical statements of fact, but rather as a way of allocating the risk to one of the parties if those statements prove to be inaccurate; (ii) may have been qualified in such agreement by disclosures that were made to the other party in connection with the negotiation of the applicable agreement; (iii) may apply contract standards of "materiality" that are different from "materiality" under the applicable securities laws; and (iv) were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement.

The undersigned registrant acknowledges that, notwithstanding the inclusion of the foregoing cautionary statements, it is responsible for considering whether additional specific disclosures of material information regarding material contractual provisions are required to make the statements in this registration statement not misleading.

### **Exhibit**

### **Number Description of Document**

- 1.1 Form of Underwriting Agreement\*\*
- 4.1 Form of Certificate of Designation of Preferred Stock\*\*
- 4.2 Form of Stock Purchase Contract\*\*
- 4.3 Form of Warrant Agreement and Form of Warrant Certificate\*\*
- 4.4 Form of Subscription Rights Agreement and Form Subscription Rights Certificate\*\*
- 4.5 Form of Indenture\*
- 4.6 Form of Note\*\*
- 4.7 Form of Debt Securities\*\*
- 5.1 Opinion of Ellenoff Grossman & Schole LLP\*
- 12.1 Computation of Ratio of Earnings to Fixed Charges\*\*
- 23.1 Consent of Marcum LLP\*
- 23.2 Consent of Ellenoff Grossman & Schole LLP (included in Exhibit 5.1)\*
- 24.1 Power of Attorney (included in Part II of this Registration Statement)\*
- 25.1 Statement of Eligibility of trustee on Form T-1\*\*+
- \* Filed herewith.
- \*\* If applicable, to be filed by an amendment or as an exhibit to a report pursuant to section 13(a) or section 15(d) of the Exchange Act and incorporated by reference
- + To be filed pursuant to Rule 305(b)(2) of the Trust Indenture Act.

### Item 17. Undertakings.

- (a) The undersigned Registrant hereby undertakes:
- 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 paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if 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 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 purpose 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 such 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-2

- 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 a 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.
- That, 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, the undersigned registrant undertakes that 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 of the registrant 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 supplement the prospectus, after the expiration of the subscription period, to set forth the results of the subscription offer, the transactions by the underwriters during the subscription period, the amount of unsubscribed securities to be purchased by the underwriters, and the terms of any subsequent reoffering thereof. If any public offering by the underwriters is to be made on terms differing from those set forth on the cover page of the prospectus, a post-effective amendment will be filed to set forth the terms of such offering.
- (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 Securities 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.
- (e) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Trust Indenture Act.

II-3

#### **SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, 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 New York, State of New York on this 9<sup>th</sup> day of January, 2018.

#### SPHERIX INCORPORATED

By:/s/ Anthony Hayes
Anthony Hayes
Chief Executive Officer, Director, and Principal Accounting Officer

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Anthony Hayes their true and lawful attorney-in-fact, with full power of substitution and resubstitution for them and in their name, place and stead, in any and all capacities to sign any and all amendments including post-effective amendments to this registration statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, hereby ratifying and confirming all that said attorney-in-fact or their substitute, each acting alone, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Name	Position	Date
/s/ Anthony Hayes	Chief Executive Officer, Director, and Principal Accounting Officer	January 9, 2018
Anthony Hayes		
/s/ Robert J. Vander Zanden	Director and Chairman of the Board	January 9, 2018
Robert J. Vander Zanden		
/s/ Tim S. Ledwick	Director	January 9, 2018
Tim S. Ledwick		
/s/ Eric Weisblum	Director	January 9, 2018

Eric Weisblum