

PERNIX THERAPEUTICS HOLDINGS, INC.

Form S-3

November 22, 2017

As filed with the Securities and Exchange Commission on November 22, 2017

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

PERNIX THERAPEUTICS HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Maryland

33-0724736

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

10 North Park Place, Suite 201
Morristown, New Jersey 07960
(800) 793-2145

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

John A. Sedor
Chief Executive Officer
10 North Park Place, Suite 201
Morristown, New Jersey 07960
(800) 793-2145

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

Copies to:

Kenneth R. Piña
Senior Vice President, Chief Legal and Compliance Officer
and Corporate Secretary
10 North Park Place, Suite 201
Morristown, New Jersey 07960
(800) 793-2145

and

Steven J. Abrams
Hogan Lovells US LLP
1735 Market Street, 23rd Floor
Philadelphia, Pennsylvania 19103
(267) 675-4600

Approximate date of commencement of proposed sale to the public: From time to time on or 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

Accelerated filer
 Smaller reporting company

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(Do not check if a smaller reporting company)

Emerging growth company

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

o

CALCULATION OF REGISTRATION FEE

Title of Securities to be
Registered

Amount to be
Registered(1)(2)

Proposed Maximum
Offering Price Per Share(3)

Proposed Maximum
Aggregate Offering Price(3)

Amount of
Registration Fee(4)

Common Stock, par value \$0.01 per share

-

-

-

Preferred Stock, par value \$0.01 per share

-

-

-

-

-

Warrants

-

-

-

-

Debt Securities

-

-

Units

-

-

-

-

-

-

Subscription Rights

-

-

-

-

Total

-

-

\$150,000,000.00 (3)

\$18,675.00

(1) Not specified as to each class of security to be registered pursuant to General Instruction II.D. of Form S-3 under the Securities Act of 1933, as amended, or Securities Act.

(2) There are being registered hereunder an indeterminate number of securities of each identified class as may be issued from time to time at indeterminate prices, as well as an indeterminate number of shares of common stock and preferred stock as may be issued upon conversion, exercise or exchange of any of the securities issued directly under this registration statement. No separate consideration is payable for any shares of common stock and preferred stock so issued upon conversion, exercise or exchange. Securities registered hereby may be sold separately, together or in units with other securities registered hereby.

(3) The proposed maximum offering price per security and the proposed maximum aggregate offering price per class of security will be determined from time to time by the Registrant in connection with the issuance by the Registrant of the securities registered hereunder and is not specified as to each class of security pursuant to General Instruction II.D. of Form S-3 under the Securities Act. The proposed maximum aggregate offering price has been estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act. The aggregate maximum offering price of all securities issued pursuant to this registration statement will not exceed \$150,000,000.00.

(4) Pursuant to Rule 415(a)(6) under the Securities Act, the securities registered pursuant to this registration statement include unsold securities previously registered by the registrant on the registrant's registration statement (File No. 333-200005) filed on November 7, 2014 and declared effective on November 25, 2014 (the "2014 Registration Statement"). The 2014 Registration Statement registered the offer and sale of an indeterminate number or amount of common stock, preferred stock, debt securities, warrants, subscription rights and units, having an aggregate initial offering price of \$300,000,000, a portion which remain unsold as of the date of filing this registration statement. The registrant has determined to include in this registration statement certain unsold securities under the 2014 Registration Statement with an aggregate offering price of \$150,000,000 (the "Unsold Securities"). Pursuant to Rule 415(a)(6) under the Securities Act, the filing fee of \$34,860 relating to the securities registered under the 2014 Registration Statement (including the Unsold Securities) will continue to be applied to the Unsold Securities registered pursuant to this registration statement and is offset against the total registration fees due hereunder. Accordingly, no additional filing fee is being paid herewith. Pursuant to Rule 415(a)(6) under the Securities Act, the offering of the Unsold Securities under the 2014 Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement

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 that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act, or until this registration

statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The Registrant has an existing "shelf" registration statement, File No. 333-200005, that was declared effective on November 25, 2014 and which expires on November 25, 2017 pursuant to Rule 415(a)(5) under the Securities Act. Pursuant to Rule 415(a)(6) promulgated under the Securities Act, the filing fees previously paid in connection with the securities being registered hereunder will continue to be applied to such securities. In accordance with Rule 415(a)(5) and Rule 415(a)(6), the Registrant may continue to offer and sell the securities covered by the existing shelf registration statement during the grace period afforded by Rule 415(a)(5). If the Registrant sells any securities being registered hereunder during the grace period, the Registrant will identify in a pre-effective amendment to this registration statement the new amount of securities to be carried forward to this registration statement in reliance upon Rule 415(a)(6).

EXPLANATORY NOTE

This registration statement contains two prospectuses:

a base prospectus which covers the offering, issuance and sale of up to \$150,000,000 of the registrant's common stock, preferred stock, debt securities, warrants, subscription rights and units; and

a sales agreement prospectus covering the offering, issuance and sale of up to \$10,675,000 of shares of the registrant's common stock that may be issued and sold under the Controlled Equity Offering

SM Sales Agreement, dated November 7, 2014, as amended (the "Sales Agreement"), between the registrant and Cantor Fitzgerald & Co.

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus. The sales agreement prospectus immediately follows the base prospectus. The common stock that may be offered, issued and sold under the sales agreement prospectus is included in the \$150,000,000 of securities that may be offered, issued and sold by the registrant under the base prospectus. Upon termination of the Sales Agreement, any portion of the \$10,675,000 included in the sales agreement prospectus that is not sold pursuant to the Sales Agreement will be available for sale in other offerings pursuant to the base prospectus.

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

Subject To Completion, Dated November 22, 2017

PROSPECTUS

\$150,000,000

Common Stock
Preferred Stock
Debt Securities
Warrants
Units
Subscription Rights

We may offer to the public from time to time in one or more series or issuances:

- shares of our common stock, par value \$0.01 per share;
- shares of preferred stock, par value \$0.01 per share;
- warrants to purchase shares of our common stock, preferred stock and/or debt securities;
- debt securities consisting of debentures, notes or other evidences of indebtedness;
- units consisting of a combination of the foregoing securities;
- subscription rights to purchase any of the foregoing securities; or
- any combination of these securities.

We may offer and sell up to \$150,000,000 in the aggregate of the securities identified above from time to time in one or more offerings. This prospectus provides a general description of the securities that we may offer. Each time that we offer securities under this prospectus, we will provide the specific terms of the securities offered, including the public offering price, in a supplement to this prospectus. Any prospectus supplement may add to, update or change information contained in this prospectus. You should read this prospectus and any applicable prospectus supplement together with additional information described under the heading "Where You Can Find More Information" before you make your investment decision.

The securities may be sold by us to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus and the comparable section of any applicable prospectus supplement.

If any underwriters are involved in the sale of the securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and over-allotment options will be set forth in the applicable prospectus supplement. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement.

Our common stock trades on the Nasdaq Global Market, or Nasdaq, under the ticker symbol "PTX." On November 20, 2017, the last reported sale price per share of our common stock was \$2.88 per share.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. RISKS ASSOCIATED WITH AN INVESTMENT IN OUR SECURITIES WILL BE DESCRIBED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND CERTAIN OF OUR FILINGS WITH THE SECURITIES AND EXCHANGE COMMISSION INCORPORATED BY REFERENCE INTO THIS PROSPECTUS, AS DESCRIBED UNDER "RISK FACTORS" ON PAGE 2.

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.

The date of this prospectus is _____, 2017.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process, we may offer to sell any of the securities, or any combination of the securities, described in this prospectus, in each case in one or more offerings, up to a total dollar amount of \$150,000,000.

This prospectus provides you only with a general description of the securities that we may offer. Each time securities are sold under the shelf registration statement, we will provide a prospectus supplement or free writing prospectus that will contain specific information about the terms of those securities and the terms of that offering. The prospectus supplement or free writing prospectus may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement or free writing prospectus, including all documents incorporated by reference herein and therein, together with the additional information described under "Where You Can Find More Information" below.

The registration statement that contains this prospectus, including the exhibits to the registration statement and the information incorporated by reference, contains additional information about the securities offered under this prospectus. That registration statement can be read at the SEC website or at the SEC offices mentioned below under the heading "Where You Can Find More Information." You should read the exhibits carefully for provisions that may be important to you.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or free writing prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement or free writing prospectus. This prospectus and the accompanying prospectus supplement or free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement or free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement or free writing prospectus, if any, is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement or free writing prospectus is delivered or securities are sold on a later date

References in this prospectus to the terms "the Company," "Pernix," "we," "our" and "us" or other similar terms mean Pernix Therapeutics Holdings, Inc. and our wholly owned subsidiaries, unless we state otherwise or the context indicates otherwise.

FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference herein, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. For this purpose, any statements contained herein, other than statements of historical fact, including statements regarding the progress and timing of our product development programs and related trials; our future opportunities; our strategy, future operations, anticipated financial position, future revenues and projected costs; our management's prospects, plans and objectives; and any other statements about management's future expectations, beliefs, goals, plans or prospects constitute forward-looking statements. We may, in some cases, use words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "project," "should," "target," "will," "would" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Among the factors that could cause actual results to differ materially from those indicated in the forward-looking statements are risks and uncertainties inherent in our business including, without limitation: our ability to comply with the covenants under our indebtedness, including our outstanding note securities, our new asset based revolving credit facility and our new delayed draw term loan; the rate and degree of market acceptance of, and our ability and our distribution and marketing partners' ability to obtain reimbursement for, any approved products; our ability to successfully execute our sales and marketing strategy, including to successfully recruit and retain sales and marketing personnel; our ability to obtain additional financing; our ability to maintain regulatory approvals for and the ability to continue to market our products in the United States; our ability to address any adverse impact on our net revenues caused by our ceasing to distribute the combination product isometheptene mucate, dichlorphenazone, and acetaminophen in compliance with United States Food and Drug Administration, or FDA, requirements; the accuracy of our estimates regarding expenses, future revenues and capital requirements; our ability to manage our anticipated future growth; the ability of our products to compete with generic products as well as new products that may be developed by our competitors; our ability and our distribution and marketing partners' ability to comply with regulatory requirements regarding the sales, marketing and manufacturing of our products, including our ability to address the temporary stockout of the 20mg strength of Zohydro ER with BeadTek; the performance of our manufacturers, over which we have limited control; our ability to obtain and maintain intellectual property protection for our products; our ability to operate our business without infringing the intellectual property rights of others; the success and timing of our clinical development efforts; the loss of key scientific or management personnel; regulatory developments in the United States and foreign countries; our ability to either acquire or develop and commercialize other product candidates in addition to our current products; the outcome of any litigation to which we may be subject and other risks described under the heading "Risk Factors" in our most recent annual report on Form 10-K and our quarterly reports on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC. If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. Our forward-looking statements do not reflect the potential impact of any acquisitions, mergers, dispositions, business development transactions, joint ventures or investments we may enter into or make in the future.

You should rely only on information contained, or incorporated by reference, in this prospectus, the registration statement of which this prospectus is a part, the documents incorporated by reference in this prospectus, and any applicable prospectus supplement or free writing prospectus and understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievement. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law. Before deciding to purchase our securities, you should carefully consider the risk factors incorporated herein by reference, in addition to the other information set forth in this prospectus, any accompanying prospectus supplement,

any free writing prospectus and in the documents incorporated by reference.

THE COMPANY

Overview

We are a specialty pharmaceutical company focused on improving patients' lives by identifying, developing and commercializing differentiated products that address unmet medical needs. Our strategy is to continue to create shareholder value by:

- growing sales of the existing products in our portfolio in various ways, including identifying new growth opportunities; and
- acquiring additional marketed specialty products or products close to regulatory approval to leverage our existing expertise and infrastructure.

We target underserved segments, such as central nervous system, or CNS, indications, including neurology, pain and psychiatry. We promote our core branded products to physicians through our sales forces. We market our generic products through our wholly owned subsidiaries, Macoven Pharmaceuticals, LLC, or Macoven, and Cypress Pharmaceuticals, Inc.

Our branded products include Treximet, a medication indicated for the acute treatment of migraine attacks, with or without aura, in adults, Zohydro ER with BeadTek, an extended-release opioid agonist indicated for the management of pain, and Silenor, a non-controlled substance and approved medication indicated for the treatment of insomnia characterized by difficulty with sleep maintenance.

Corporate Information

Our principal executive office is at 10 North Park Place, Suite 201, Morristown, New Jersey 07960, and our telephone number is (800) 793-2145. Our website address is www.pernixtx.com. The information contained in, or accessible through, our website does not constitute part of this prospectus or part of any prospectus supplement or any free writing prospectus. We make available free of charge on our website our annual, quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC. Information contained on our website is not incorporated by reference into this prospectus or the accompanying prospectus supplement or free writing prospectus, and you should not consider information contained on our website as part of this prospectus or any prospectus supplement or free writing prospectus.

RISK FACTORS

Our business is influenced by many factors that are difficult to predict, and that involve uncertainties that may materially affect actual operating results, cash flows and financial condition. Before making an investment decision, you should carefully consider these risks, including those set forth in the "Risk Factors" section of our most recent Annual Report on Form 10-K filed with the SEC, as revised or supplemented by our Quarterly Reports on Form 10-Q filed with the SEC since the filing of our most recent Annual Report on Form 10-K, each of which is incorporated by reference into this prospectus. You should also carefully consider any other information we include or incorporate by reference in this prospectus or include in any applicable prospectus supplement. Each of the risks described in these sections and documents could materially and adversely affect our business, financial condition, results of operations and prospects, and could result in a partial or complete loss of your investment.

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement or free writing prospectus, we anticipate that the net proceeds from our sale of any securities will be used to fund the development of our commercial and clinical programs, for other research and development activities and for general corporate purposes, which may include capital expenditures

and funding our working capital needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used, although we currently are not planning or negotiating any such transactions. Pending such uses, we may invest the net proceeds in investment grade interest-bearing securities.

The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the amount and timing of the proceeds from this offering. Expenditures will also depend upon the establishment of collaborative arrangements with other companies, the availability of additional financing and other factors. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of securities.

RATIO OF EARNINGS TO FIXED CHARGES

Any time debt securities are offered pursuant to this prospectus, we will provide a table setting forth our ratio of earnings to fixed charges on a historical basis in the applicable prospectus supplement, if required.

GENERAL DESCRIPTION OF OUR SECURITIES

We may offer and sell, at any time and from time to time:

- shares of our common stock;
- shares of preferred stock;
- warrants to purchase shares of our common stock, preferred stock and/or debt securities;
- debt securities consisting of debentures, notes or other evidences of indebtedness;
- units consisting of a combination of the foregoing securities;
- subscription rights to purchase any of the foregoing securities; or
- any combination of these securities.

The terms of any securities we offer will be determined at the time of sale. We may issue debt securities that are exchangeable for and/or convertible into common stock or any of the other securities that may be sold under this prospectus. When particular securities are offered by us, a supplement to this prospectus will be filed with the SEC, which will describe the terms of the offering and sale of the offered securities.

DESCRIPTION OF OUR CAPITAL STOCK

The following description of our capital stock and provisions of our charter, bylaws and the Maryland General Corporate Law, or MGCL, are summaries and are qualified in their entirety by reference to the charter and the bylaws. We have filed copies of these documents with the SEC as exhibits to our registration statement, of which this prospectus forms a part.

Pursuant to our charter, our authorized capital stock consists of 140,000,000 shares of common stock, par value of \$0.01 per share, and 10,000,000 shares of preferred stock, par value \$0.01 per share, of which 1,000,000 shares have been designated as Series B Junior Participating Stock. As of November 22, 2017, there were 11,641,409 shares of our common stock outstanding and no shares of preferred stock outstanding.

Common Stock

Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders, including the election of directors.

Our charter and bylaws do not provide for cumulative voting rights. Because of this, subject to the voting rights of any outstanding shares of preferred stock, the holders of a majority of the common stock actually voted in any election of directors can elect all of the directors standing for election, except in the case of a contested election, in which directors will be elected by a plurality of the shares actually voted.

Subject to the preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

The terms of our common stock do not include any preemptive, conversion or subscription rights, nor any redemption or sinking fund provisions.

The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of Series B Junior Participating Stock and holders of shares of any other series of our preferred stock that we may classify and issue in the future.

Preferred Stock

Pursuant to our charter, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or Nasdaq Global Market rules), to (1) issue up to 1,000,000 shares of Series B Junior Participating Stock, and (2) designate and issue up to 9,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the preferences, conversion and other rights, voting powers, restrictions, limitations as to dividends, qualifications, and other terms and conditions of the shares of each such series, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding or above the amount authorized in our charter. These rights, powers, restrictions and limitations could rank senior to and adversely impact holders of our common stock and other series of preferred stock, and may provide the right to receive specified dividend payments and payments on liquidation prior to any payments to holders of common stock or other series of preferred stock. For example, each share of our Series B Junior Participating Stock entitles the holder thereof to 100 votes on all matters submitted to a vote of the holders of the common stock. There are currently no shares of Series B Junior Participating Stock outstanding.

Our board of directors may authorize the issuance of preferred stock with voting, conversion, dividend, liquidation preference and other rights that could adversely affect the voting power or other rights of the holders of our common stock and any other series of preferred stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

Common Stock Warrants

In connection with our acquisition of Somaxon Pharmaceuticals, Inc., we issued warrants to purchase 32,992 shares of our common stock, having exercise prices ranging from \$77.03 to \$734.31, subject to certain adjustments, and

expiration dates ranging from January 2018 through December 2021.

Registration Rights

In July 2017, we and certain of our subsidiaries entered into an exchange agreement, or the July 2017 Exchange Agreement, with certain holders of our outstanding 4.25% Convertible Senior Notes due 2021. In connection with the July 2017 Exchange Agreement, we entered into a registration rights agreement with such holders pursuant to

which we granted the holders certain registration rights with respect to the shares of our common stock: (i) underlying debt securities issued to such holders in connection with the consummation of the July 2017 Exchange Agreement; and (ii) issued to such holders in connection with the consummation of the July 2017 Exchange Agreement. A registration statement relating to such shares was filed on July 24, 2017 and declared effective by the SEC on August 11, 2017.

Description of Certain Provisions of Maryland Law and our Charter and Bylaws

The following summary of certain provisions of Maryland law and of our charter and bylaws does not purport to be complete and is subject to and qualified in its entirety by reference to Maryland law and to our charter and bylaws, copies of which are filed with the SEC as exhibits to the registration statement of which this prospectus forms a part.

Our Board of Directors

Our bylaws provide that the number of directors of our company may be established by our board of directors but may not be fewer than the minimum number permitted under the MGCL nor more than 9. Our board currently is set at five directors. As of November 22, 2017, our board of directors had five members. Our charter provides that a vacancy on our board of directors, including a vacancy created by an increase in the number of directors, may be filled by the remaining directors until a successor is elected and qualified. However, a vacancy created by the removal of a director, which removal requires the affirmative vote of the stockholders holding not less than two-thirds of all the votes entitled to be cast for the election of directors as provided in our charter, will be filled by a majority of all the votes entitled to be cast at a meeting of stockholders duly called and at which a quorum is present. Pursuant to our bylaws, each of our directors is elected by our stockholders to serve until the next annual meeting and until his or her successor is duly elected and qualified under the MGCL. Except as provided with respect to any other class or series of stock, including any Series B Junior Participating Stock, the holders of our common stock possess the exclusive voting power. Each share of our Series B Junior Participating Stock entitles the holder thereof to 100 votes on all matters submitted to a vote of the holders of our common stock. Holders of shares of our common stock have no right to cumulative voting in the election of directors. Consequently, at each annual meeting of stockholders and subject to any outstanding shares of Series B Junior Participating Stock or other preferred stock, the holders of a majority of the shares of our issued and outstanding common stock have the ability to elect all of our directors.

Business Combinations

Under the MGCL, certain "business combinations" (defined in the MGCL) between a Maryland corporation and any interested stockholder, or an affiliate of such an interested stockholder, are prohibited for five years after the most recent date on which the interested stockholder becomes an interested stockholder. The MGCL defines an interested stockholder as any person who:

is the beneficial owner, directly or indirectly, of 10% or more of the voting power of the outstanding voting stock of the corporation, or

is an affiliate or associate of the corporation who, at any time within the two-year period prior to the date in question, was the beneficial owner, directly or indirectly, of 10% or more of the voting power of the then outstanding voting stock of the corporation.

A person is not an interested stockholder under the statute if our board of directors approved in advance the most recent transaction by which the person otherwise would have become an interested stockholder. However, in approving a transaction, our board of directors may provide that its approval is subject to compliance at or after the time of the approval, with any terms and conditions determined by it.

Business combinations are defined by the MGCL to include certain mergers, consolidations, share exchanges and asset transfers, some issuances and reclassifications of equity securities, the adoption of a plan of liquidation or dissolution or the receipt by an interested stockholder or its affiliate of any loan advance, guarantee, pledge or other financial assistance or tax advantage provided by the company.

After the five-year moratorium period described above, any business combination between the company and an interested stockholder generally must be recommended by our board of directors and approved by the affirmative vote of at least:

80% of the votes entitled to be cast by holders of outstanding shares of voting stock of the corporation, and

two-thirds (2/3) of the votes entitled to be cast by holders of voting stock of the corporation other than shares held by the interested stockholder with whom (or with whose affiliate) the business combination is to be effected or by an affiliate or associate of the interested stockholder voting together in a single voting group, unless, among other conditions, the corporation's common stockholders receive a minimum price (as described in the MGCL) for their shares and the consideration is received in cash or in the same form as previously paid by the interested stockholder for its shares.

Our board of directors has adopted a resolution exempting from the business combination moratorium provisions of the MGCL any future business combination with Highbridge Capital Management LLC or its present or future affiliates that is approved by our board of directors prior to its occurrence and has reserved the right to alter or repeal this resolution.

These provisions of the MGCL do not apply, however, to business combinations that are approved or exempted by a board of directors prior to the time that the interested stockholder becomes an interested stockholder.

Control Share Acquisitions

The MGCL provides that "control shares" of a Maryland corporation acquired in a "control share acquisition" have no voting rights except to the extent approved at a special meeting by the affirmative vote of two-thirds of the votes entitled to be cast on the matter, excluding shares of stock in a corporation in respect of which any of the following persons is entitled to exercise or direct the exercise of the voting power of shares of stock of the corporation in the election of directors:

a person who makes or proposes to make a control share acquisition,

an officer of the corporation, or

an employee of the corporation who is also a director of the corporation.

"Control shares" are voting shares of stock which, if aggregated with all other such shares of stock previously acquired by the acquiror or in respect of which the acquiror is able to exercise or direct the exercise of voting power (except solely by virtue of a revocable proxy), would entitle the acquiror to exercise voting power in electing directors within one of the following ranges of voting power:

one-tenth or more but less than one-third,

one-third or more but less than a majority, or

a majority or more of all voting power.

Control shares do not include shares the acquiring person is then entitled to vote as a result of having previously obtained stockholder approval in accordance with the MGCL. A "control share acquisition" means the acquisition of control shares, subject to certain exceptions.

A person who has made or proposes to make a control share acquisition, upon satisfaction of certain conditions (including an undertaking to pay expenses), may compel our board of directors to call a special meeting of stockholders to be held within 50 days of demand to consider the voting rights of the control shares. If no request for a meeting is made, the corporation may itself present the question at any stockholders meeting. If voting rights of control shares are not approved at the meeting or if the acquiring person does not deliver the statement as required by the MGCL, then, subject to certain conditions and limitations, the corporation may redeem any or all of the control shares (except those for which voting rights have previously been approved) for fair value.

Fair value is determined, without regard to the absence of voting rights for the control shares, as of the date of the last control share acquisition by the acquiror or of any meeting of stockholders at which the voting rights of such shares are considered and not approved. If voting rights for control shares are approved by the stockholders at a special meeting and the acquiror becomes entitled to vote a majority of the shares entitled to vote, all other stockholders may exercise appraisal rights. The fair value of the shares as determined for purposes of such appraisal rights may not be less than the highest price per share paid by the acquiror in the control share acquisition. The control share acquisition statute does not apply (1) to shares acquired in a merger, consolidation or share exchange if the corporation is a party to the transaction or (2) to acquisitions approved or exempted by a corporation's charter or bylaws.

Our bylaws contain a provision exempting from the control share acquisition statute any and all acquisitions of our capital stock. We cannot provide you any assurance that our board of directors will not amend or eliminate this provision at any time in the future, and our board of directors may do so on a retroactive basis.

Subtitle 8

Title 3, Subtitle 8 of the MGCL permits a Maryland corporation with a class of equity securities registered under the Exchange Act and at least three independent directors to elect to be subject, by provision in its charter or bylaws or a resolution of its board of directors and notwithstanding any contrary provision in the charter or bylaws, to any of (1) a classified board, (2) a two-thirds vote requirement for removing a director, (3) a requirement that the number of directors be fixed only by vote of the directors, (4) a requirement that a vacancy on the board be filled only by the remaining directors and for the remainder of the full term of the class of directors in which the vacancy occurred, or (5) a majority requirement for the calling of a special meeting of stockholders.

Through provisions in our charter and bylaws unrelated to Subtitle 8, we already require a two-thirds vote for the removal of any director from the board, vest in the board the exclusive power to fix the number of directorships, subject to the limitations set forth in our bylaws, and require, unless called by our president, a majority of our board of directors or a majority of our independent directors, the written request of stockholders entitled to cast not less than a majority of all votes entitled to be cast at such meeting to call a special meeting. We have not elected to create a classified board; however, our board may elect to do so in the future without stockholder approval.

Charter Amendments and Extraordinary Transactions

Under the MGCL, a Maryland corporation generally cannot dissolve, amend its charter, merge, sell all or substantially all of its assets or engage in a share exchange unless approved by the affirmative vote of stockholders entitled to cast at least two-thirds of the votes entitled to be cast on the matter unless a lesser percentage (but not less than a majority of all of the votes entitled to be cast on the matter) is set forth in the corporation's charter. Our charter does not provide for a lesser percentage of votes for stockholder approval of the dissolution, merger, sale of all or substantially all of our assets or share exchange on the part of the company. However, because operating assets may be held by a corporation's subsidiaries, as in our situation, this may mean that a subsidiary of a corporation can transfer all of its assets or engage in other extraordinary actions without any vote of the corporation's stockholders.

Our charter generally provides that charter amendments requiring stockholder approval must be declared advisable by our board of directors and approved by the affirmative vote of stockholders entitled to cast a majority of all of the votes entitled to be cast on the matter. However, the affirmative vote of stockholders holding at least two-thirds of all of the votes entitled to be cast thereon is required to amend, alter, change, repeal or adopt any provisions inconsistent with the sections of our charter relating to removal of directors, the prohibition on cumulative voting in the election of directors, the requirements for independent directors, the prohibition on preemptive rights (except as provided in the terms of any series of preferred stock), indemnification and limitation of liability of directors and officers, and amendment of the charter. Currently, there are no provisions of our charter granting cumulative voting or preemptive rights to holders of our capital stock.

In addition, our board may, upon the vote of a majority of our board of directors acting without stockholder approval, increase (up to the maximum number authorized under our charter but unissued) or decrease (to an amount not less than the total amount then outstanding) the number of shares of stock of any class that the corporation has authority to issue.

Bylaw Amendments

Our board of directors has the exclusive power to adopt, alter or repeal any provision of our bylaws and to make new bylaws, provided that amendment of certain provisions in our bylaws requires the affirmative vote of 80% of our entire board of directors.

Advance Notice of Director Nominations and New Business

Our bylaws provide that:

with respect to an annual meeting of stockholders, nominations of individuals for election to our board of directors and the proposal of business to be considered by stockholders may be made only:

pursuant to our notice of the meeting;

by or at the direction of our board of directors; or

by a stockholder who is entitled to vote at the meeting and has complied with the advance notice procedures set forth in our bylaws; and

with respect to special meetings of stockholders, only the business specified in our company's notice of meeting may be brought before the meeting of stockholders and nominations of individuals for election to our board of directors may be made only pursuant to our notice of the meeting, provided that the president, a majority of the board of directors (or of the independent directors) or the secretary of the company (upon request of holders of shares entitled to cast a majority of all the votes entitled to be cast at such meeting), shall be permitted to call and propose matters to be acted on at a special meeting.

The advance notice procedures of our bylaws generally provide that, to be timely, a stockholder's notice with respect to director nominations or proposals for an annual meeting must be delivered to our corporate secretary at our principal executive office not less than 90 nor more than 120 days prior to the first anniversary of the date of our preceding year's annual meeting.

Anti-takeover Effect of Certain Provisions of Maryland Law and of Our Charter and Bylaws

The general applicability of the business combination provisions of the MGCL, the provisions of our charter on removal of directors and the advance notice provisions of the bylaws could delay, defer or prevent a transaction or a change in control of our company that might involve a premium price for holders of our common stock or otherwise be in their best interest. Likewise, if our board of directors were to opt in to certain of the provisions of Title 3, Subtitle 8 of the MGCL, or if the provision in the bylaws opting out of the control share acquisition provisions of the MGCL were rescinded, these provisions of the MGCL could have similar anti-takeover effects.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

Stock Market Listing

Our shares of common stock are listed for trading on the Nasdaq Global Market under the symbol "PTX."

DESCRIPTION OF OUR WARRANTS

We may issue warrants to purchase shares of our common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in each applicable prospectus supplement or free writing prospectus. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the applicable warrant agreements and the applicable prospectus supplement or free writing prospectus for the warrants.

The applicable prospectus supplement or free writing prospectus will contain, where applicable, the following terms of and other information relating to the warrants:

- the specific designation and aggregate number of, and the price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the designation, amount and terms of the securities purchasable upon exercise of the warrants;
- if applicable, the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise of the warrants;
- if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise of the warrants, and a description of that series of our preferred stock;
- if applicable, the exercise price for our debt securities, the amount of our debt securities to be received upon exercise of the warrants, and a description of that series of debt securities;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if the warrants may not be continuously exercised throughout that period, the specific date or dates on which the warrants may be exercised;
- whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax or foreign tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange or market;
- if applicable, the date from and after which the warrants and the common stock, preferred stock and/or debt securities will be separately transferable;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any
- the anti-dilution provisions of the warrants, if any;

- any redemption, put or call provisions;
- whether the warrants are to be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Transfer Agent and Registrar

The transfer agent and registrar for any warrants will be set forth in the applicable prospectus supplement or free writing prospectus.

Description of Outstanding Warrants

As of November 22, 2017, there were 32,992 warrants to purchase shares of our common stock outstanding. See "Description of Our Capital Stock - Common Stock Warrants."

DESCRIPTION OF OUR DEBT SECURITIES

This section describes the general terms and provisions of our debt securities that we may issue from time to time. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, the applicable prospectus supplement or free writing prospectus will describe the specific terms of any debt securities offered through that prospectus supplement or free writing prospectus. The terms of any debt securities we offer under a prospectus supplement or free writing prospectus may differ from the terms we describe below. Unless the context requires otherwise, whenever we refer to the "indentures," we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

As of September 30, 2017, we have outstanding (a) \$172,069,814 of 12% Senior Secured Notes due 2020, (b) \$78,225,000 of 4.25% Convertible Senior Notes due 2021, and (c) \$36,242,500 of 4.25%/5.25% Exchangeable Notes due 2022.

We will issue any senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. We will issue any subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The indentures will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We use the term "trustee" to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement or free writing prospectus related to the debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

General

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

- the title of the series;
- the aggregate principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;

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- the issue price or prices, expressed as a percentage of the aggregate principal amount of the debt securities;
- any limit on the aggregate principal amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depository will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability or the ability of our subsidiaries to:
 - ◆ incur additional indebtedness;
 - ◆ issue additional securities;
 - ◆ create liens;
 - ◆ pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries;
 - ◆ redeem capital stock;
 - ◆ place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - ◆ make investments or other restricted payments;
 - ◆ sell or otherwise dispose of assets;
 - ◆ enter into sale-leaseback transactions;
 - ◆ engage in transactions with stockholders or affiliates;
 - ◆ issue or sell stock of our subsidiaries; or
 - ◆ effect a consolidation or merger;

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- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of certain material or special United States federal income tax considerations or foreign tax considerations applicable to the debt securities;
- information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- the applicability of the provisions in the indenture on discharge;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement or free writing prospectus the terms on which a particular series of debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third-party) that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default Under the Indenture

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

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- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement or free writing prospectus any additional events of default relating to the relevant series of debt securities.

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

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

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

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

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

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and

- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities, or other defaults that may be specified in the applicable prospectus supplement or free writing prospectus.

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

Modification of Indenture; Waiver

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

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

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

- extending the stated maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any debt securities; or

- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain an office or agency with respect to each series of debt securities;
- maintain paying agencies;
- make, or cause to be made, payment of principal (and premium, if any) and interest due on each series of debt securities and hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

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

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement or free writing prospectus, in denominations of \$1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement or free writing prospectus with respect to that series.

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

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

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

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

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

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

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

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

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

Governing Law

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

Ranking of Debt Securities

The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement or free writing prospectus. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

The senior debt securities will rank equally in right of payment to all our other senior unsecured debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

8.00% Convertible Senior Notes due 2019

On February 21, 2014, we issued \$65.0 million aggregate principal amount of our 8.00% Convertible Senior Notes due 2019, or the 8.00% Convertible Notes, in accordance with each of the Securities Purchase Agreements dated February 4, 2014, by and between us and the investors party thereto, and the related Indenture, dated February 21, 2014, by and between us and the trustee. During the year ended December 31, 2015, the holders of the 8.00% Convertible Notes converted the outstanding notes at a conversion price of \$36.00 per share. We issued 1.8 million shares pursuant to this conversion and retired the \$65.0 million of the outstanding 8.00% Convertible Notes.

12% Senior Secured Notes due 2020

On August 19, 2014, we issued \$220,000,000 aggregate principal amount of our 12% Senior Secured Notes due 2020, or the August 2014 Notes, pursuant to an Indenture, or the August 2014 Indenture, dated as of August 19, 2014 among us, certain of our subsidiaries, or the Treximet Guarantors, and U.S. Bank National Association, or the August 2014 Trustee, as trustee and collateral agent.

The August 2014 Notes mature on August 1, 2020 and bear interest at a rate of 12% per annum, payable in arrears on February 1 and August 1 of each year, beginning on February 1, 2015. On each payment date, commencing August 1, 2015, we will pay an installment of principal of the August 2014 Notes in an amount equal to 50% of net sales of Treximet, as such term is defined in the August 2014 Indenture, for the two consecutive fiscal quarters immediately preceding such payment date (less the amount of interest paid on the August 2014 Notes on such payment date).

The August 2014 Notes are unconditionally guaranteed, jointly and severally, by the Treximet Guarantors. The August 2014 Notes and the guarantees of the Treximet Guarantors are secured by a continuing first-priority security interest in substantially all of our assets and the assets of the Treximet Guarantors related to Treximet®, other than inventory and certain inventory related assets, including accounts arising from the sale of the inventory.

We may redeem the August 2014 Notes at our option, in whole at any time or in part from time to time, on any business day, on not less than 30 days' nor more than 60 days' prior notice provided to each holder's registered address. The redemption price will equal 100% of the outstanding principal amount of the August 2014 Notes being redeemed plus accrued and unpaid interest thereon.

The August 2014 Indenture contains covenants that limit our ability and the ability of the Treximet Guarantors to, among other things: incur certain additional indebtedness; pay dividends on, redeem or repurchase stock or make other distributions in respect of its capital stock; repurchase, prepay or redeem certain indebtedness; make certain investments; create restrictions on the ability of the Treximet Guarantors to pay dividends to us or make other intercompany transfers; create liens; transfer or sell assets; consolidate, merge or sell or otherwise dispose of all or substantially all of its assets and enter into certain transactions with affiliates. Upon the occurrence of certain events constituting a change of control, we are required to make an offer to repurchase all of the August 2014 Notes (unless otherwise redeemed) at a purchase price equal to 101% of their principal amount, plus accrued and unpaid interest, if

any to the repurchase date.

The August 2014 Indenture provides that an event of default will occur if, among other things, (a) we default in any payment of interest on any August 2014 Note when due and payable, and such default continues for a period of 30 days; (b) we default in the payment of principal of or premium, if any, on any August 2014 Note when due and payable on the maturity date, upon declaration of acceleration or otherwise, or to pay the change of control repurchase price, when due and payable, and such default continues for a period of five days; (c) we fail to make a repurchase offer in the event of a change in control when required under the August 2014 Indenture, which continues for three business days; (d) we or any Treximet Guarantor fails to comply with certain covenants after receiving written notice from the August 2014 Trustee or the holders of more than 25% of the principal amount of the outstanding August 2014 Notes; (e) we or any Treximet Guarantor defaults with respect to other indebtedness for borrowed money in excess of \$8,000,000 and such default is not cured within 30 days after written notice from the August 2014 Trustee or the holders of more than 25% of the principal amount of the outstanding August 2014 Notes; (f) we or any Treximet Guarantor has rendered against it a final judgment for the payment of \$8,000,000 (or its foreign currency equivalent) or more (excluding any amounts covered by insurance) under certain circumstances; (g) certain bankruptcy, insolvency, liquidation, reorganization or similar events occur with respect to us or any Treximet Guarantor; (h) a guarantee of the August 2014 Notes (with certain exceptions) is held to be unenforceable or invalid in a judicial proceeding or ceases to be in full force and effect or a Treximet Guarantor disaffirms its obligations under its guarantee of the August 2014 Notes; or (i) certain changes in control of a Treximet Guarantor.

On April 21, 2015, we and the August 2014 Trustee entered into a First Supplemental Indenture to the August 2014 Indenture, or the August 2014 First Supplemental Indenture, to among other things, allow us to incur up to \$42.2 million of additional debt. On July 21, 2017, we, certain of our subsidiaries, or the New Guarantors, and the August 2014 Trustee entered into a Second Supplemental Indenture to the August 2014 Indenture, or the August 14 Second Supplemental Indenture, pursuant to which the New Guarantors provided guarantees of our obligations with respect to August 2014 Notes. On November 2, 2017, we, certain holders of the August 2014 Notes and the August 2014 Trustee entered into a Waiver, Amendment and Consent Agreement, pursuant to which such holders of the August 2014 Notes, representing a majority in aggregate principal amount of the August 2014 Notes then outstanding, agreed to waive compliance with, and modify certain provisions of, the August 2014 Indenture in order to permit and facilitate the distribution and marketing of an authorized generic version of Treximet in the United States by one of our wholly-owned subsidiaries, Macoven. In connection with the Waiver, Amendment and Consent Agreement, the Required Holders, as such term is defined in the August 2014 Indenture, were granted, among other things, certain consent rights with respect to the termination provisions in the Intercompany Distribution Agreements, as such term is defined in the August 2014 Indenture.

4.25% Convertible Senior Notes due 2021

On April 22, 2015, we issued \$130.0 million aggregate principal amount of our 4.25% Convertible Senior Notes due 2021, or the 4.25% Convertible Notes. The 4.25% Convertible Notes mature on April 1, 2021, unless earlier converted, redeemed or repurchased. The 4.25% Convertible Notes are governed by the terms of an Indenture, or the April 2015 Indenture, between us and Wilmington Trust, National Association, or the April 2015 Trustee, which was entered into on April 22, 2015.

The 4.25% Convertible Notes are our general unsecured obligations and bear interest at a rate of 4.25% per annum, payable semiannually in arrears on April 1 and October 1 of each year, beginning on October 1, 2015. The 4.25% Convertible Notes will mature on April 1, 2021, unless earlier converted, redeemed or repurchased. The Notes will be convertible into shares of our common stock at a conversion rate of 8.7237 shares of common stock per \$1,000 principal amount of the 4.25 % Convertible Notes, which represents a conversion price of approximately \$114.63 per share. The conversion rate is subject to adjustment from time to time upon the occurrence of certain events, including, but not limited to, the issuance of certain stock dividends on common stock, the issuance of certain rights or warrants, subdivisions, combinations, distributions of capital stock, indebtedness, or assets, the payment of cash dividends and certain tender or exchange offers.

We may not redeem the 4.25% Convertible Notes prior to April 6, 2019. However, the holders may convert their 4.25% Convertible Notes at any time prior to the close of business on the business day immediately preceding January 1, 2021 only under certain circumstances. Upon conversion, we will deliver a number of shares of our common stock equal to the conversion rate in effect on the conversion date. In addition to the holder option to convert, the 4.25% Convertible Notes may be redeemed upon the occurrence of certain events.

No "sinking fund" is provided for the 4.25% Convertible Notes, which means that we are not required to periodically redeem or retire the 4.25% Convertible Notes. If we undergo a "fundamental change", as defined in the April 2015 Indenture, subject to certain conditions, holders may require us to repurchase for cash all or part of their 4.25% Convertible Notes in principal amounts of \$1,000 or an integral multiple thereof. The fundamental change repurchase price will be equal to 100% of the principal amount of the 4.25% Convertible Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. The April 2015 Indenture does not contain any financial or operating covenants or restrictions on the payments of dividends, the incurrence of indebtedness or the issuance or repurchase of securities by us or any of our subsidiaries. The April 2015 Indenture does not contain covenants or other provisions to afford protection to holders of the 4.25% Convertible Notes in the event of a fundamental change or other corporate transaction involving it except to the extent described above.

The April 2015 Indenture also provides for customary events of default. If an event of default (other than certain events of bankruptcy, insolvency or reorganization involving us) occurs and is continuing, the April 2015 Trustee by notice to us, or the holders of at least 25% in principal amount of the outstanding 4.25% Convertible Notes by written notice to us and the April 2015 Trustee, may declare 100% of the principal of and accrued and unpaid interest, if any, on all of the 4.25% Convertible Notes to be due and payable. Upon such a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately. Upon the occurrence of certain events of bankruptcy, insolvency or reorganization involving us, 100% of the principal of and accrued and unpaid interest, if any, on all of the 4.25% Convertible Notes will become due and payable automatically. Notwithstanding the foregoing, the April 2015 Indenture provides that, to the extent we elect and for up to 270 days, the sole remedy for an event of default relating to certain failures by us to comply with certain reporting covenants in the Indenture consists exclusively of the right to receive additional interest on the 4.25% Convertible Notes.

4.25%/5.25% Exchangeable Senior Notes due 2022

On July 20, 2017, we entered into the July 2017 Exchange Agreement with certain holders of the 4.25% Convertible Notes, or the Supporting Holders, pursuant to which, among other things, our wholly-owned subsidiary, Pernix Ireland Pain Limited, or PIPL, issued \$36,242,500 aggregate principal amount of PIPL's 4.25%/5.25% Exchangeable Senior Notes due 2022, or the Exchangeable Notes, in exchange for the tender to PIPL of \$51.8 million aggregate principal amount of the 4.25% Convertible Notes held by the Supporting Holders. The Exchangeable Notes are governed by the terms of an Indenture, or the July 2017 Indenture, among PIPL, us and our subsidiaries party thereto as guarantors and Wilmington Trust, National Association, or the July 2017 Trustee, which was entered into on July 21, 2017. Subsequent to the execution of the July 2017 Indenture, on August 9, 2017, PIPL changed its name and form of organization under Irish law to Pernix Ireland Pain Designated Activity Company, or PIP DAC, remaining the primary obligor with respect to the July 2017 Indenture.

The Exchangeable Notes are senior, unsecured obligations of PIP DAC. Interest on the Exchangeable Notes will be paid in cash or a combination of cash and in-kind interest at PIP DAC's election. Interest paid in cash, or the All Cash Method, will accrue at a rate of 4.25% per annum, while interest paid in a combination of cash and in-kind will accrue at a rate of 5.25% per annum, with 2.25% per annum of interest (plus additional interest, if any) capitalized to the principal amount of the Exchangeable Notes, and the balance paid in cash. The maturity date of the Exchangeable Notes Indenture is July 15, 2022.

The Exchangeable Notes initially are exchangeable into shares of our common stock at an exchange price per share of \$5.50, or the Exchange Price. The Exchange Price is subject to adjustment from time to time upon the occurrence of certain events, including, but not limited to, the issuance of certain stock dividends on our common stock, the issuance of certain rights or warrants, subdivisions, combinations, distributions of capital stock, indebtedness, or assets, the payment of cash dividends or certain tender or exchange offers.

Holders may exchange all or a portion of their Exchangeable Notes at their option at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date.

Upon not less than 30 nor more than 45 trading days' notice, if the daily VWAP, as defined in the July 2017 Indenture, of our common stock has been at least 120% of the Exchange Price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which such notice of redemption is provided, we will have the right to redeem any or all of the Exchangeable Notes at a price equal to 100% of the principal amount thereof (including any interest capitalized thereto) plus accrued interest that has not been paid or capitalized to, but excluding, the date on which the Exchangeable Notes are to be redeemed. The redemption price will be paid in cash.

No "sinking fund" will be provided for the Exchangeable Notes, which means that PIP DAC will not be required to periodically redeem or retire the Exchangeable Notes. If we or PIP DAC undergoes a fundamental change, as defined below, subject to certain conditions, holders of the Exchangeable Notes may require PIP DAC to repurchase for cash all or part of their Exchangeable Notes. The fundamental change repurchase price will be equal to 100% of the principal amount (including any interest capitalized thereto) of the Exchangeable Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the date, chosen by PIP DAC, that is not less than 20 business days or more than 35 business days following the date on which notice of the fundamental change was provided by PIP DAC.

Under the July 2017 Indenture, a "fundamental change" will be deemed to have occurred if, among other events, any of the following occurs: (i) any "group" or "person," within the meaning of Section 13(d) of the Exchange Act, other than a permitted holder under the July 2017 Indenture, becomes the direct or indirect "beneficial owner," as defined in Rule 13d-3 under the Exchange Act, of our common stock representing more than 50% of our voting power; (ii) we consummate any recapitalization, reclassification or change of our common stock, subject to certain exceptions as contained in the July 2017 Indenture; (iii) we effect any share exchange, consolidation or merger pursuant to which our common stock will be converted into cash, securities or other property or assets; (iv) we effect any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of our consolidated assets to a person or entity other than a permitted holder under the July 2017 Indenture; (v) our stockholders approve a plan or proposal for our liquidation or dissolution or the liquidation or dissolution of PIP DAC; or (vi) our common stock ceases to be listed on The New York Stock Exchange, The Nasdaq Global Select Market or The Nasdaq Global Market (or any of their respective successors).

Holders of the Exchangeable Notes are entitled to receive, in certain circumstances, additional shares of our common stock upon exchanges of Exchangeable Notes in connection with a provisional redemption or certain fundamental changes.

Subject to certain limited exceptions, the Exchangeable Notes contain covenants which prohibit or limit the ability of PIP DAC and the guarantors under the July 2017 Indenture to, among other things: (i) pay cash dividends or make distributions on our capital stock or redeem or repurchase our capital stock; (ii) create, assume or suffer to exist at any time any lien upon any of our properties or assets; (iii) incur any debt other than debt permitted under the terms of the Exchangeable Notes Indenture; (iv) enter into transactions with affiliates other than on terms and conditions that, taken as a whole, would be obtained in an arm's-length transaction with non-affiliates; or (v) make any sale of our assets and the assets of our subsidiaries except in accordance with the terms of the July 2017 Indenture.

The July 2017 Indenture also provides for customary events of default. If an event of default (other than certain events of bankruptcy, insolvency or reorganization involving PIP DAC) occurs and is continuing, the July 2017 Trustee by notice to PIP DAC, or the holders of at least 25% in principal amount of the then outstanding Exchangeable Notes by written notice to PIP DAC and the July 2017 Trustee, may declare 100% of the accreted principal of and accrued and unpaid interest, if any, on all of the Exchangeable Notes to be due and payable immediately. Upon the occurrence of certain events of bankruptcy, insolvency or reorganization involving PIP DAC, 100% of the principal of and accrued and unpaid interest, if any, on all of the Exchangeable Notes will become due and payable automatically, including a make-whole premium in an amount equal to the present value of the interest that would accrue on such Exchangeable Notes (assuming the All Cash Method) from, and including, such date of acceleration until the maturity date of the Exchangeable Notes, with such present value computed using a discount rate equal to the sum of (i) the yield to

maturity of United States Treasury securities with remaining maturity equal to that of the Exchangeable Notes (as determined in a commercially reasonable manner by PIP DAC) on such date of acceleration and (ii) 50 basis points. Notwithstanding the foregoing, for up to 270 days after the occurrence of an event of default, PIP DAC may elect to have the sole remedy for an event of default relating to certain of PIP DAC's failures to comply with certain reporting covenants in the July 2017 Indenture consist exclusively of the right to receive additional interest on the Exchangeable Notes.

Holders of Exchangeable Notes will not be entitled to receive shares of our common stock upon exchange of any Exchangeable Notes to the extent such holder (or group of which such holder is a part) would beneficially own more than 9.99% of the outstanding shares of our common stock. Subject to such limitation, at the initial Exchange Price, the Exchangeable Notes will be exchangeable into approximately 40% of our outstanding common stock as of the date hereof (after giving effect to the issuance of 1,100,498 shares of our common stock to certain Holders of the Exchangeable Notes in connection with the July 2017 Exchange Agreement and the common stock underlying the Exchangeable Notes).

DESCRIPTION OF OUR UNITS

The following, together with the additional information we may include in the applicable prospectus supplement or free writing prospectus, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms summarized below will apply generally to any units we may offer, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement or free writing prospectus.

We may, from time to time, issue units comprised of one or more of the other securities that may be offered under this prospectus, in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately at any time, or at any time before a specified date.

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of units, including:

- the material terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- the rights and obligations of the unit agent, if any;

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any material provisions relating to the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and

- any material provisions of the governing unit agreement that differ from those described above.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

DESCRIPTION OF OUR SUBSCRIPTION RIGHTS

As specified in any applicable prospectus supplement or free writing prospectus, we may issue subscription rights consisting of one or more debt securities, shares of preferred stock, shares of common stock or any combination of such securities.

PLAN OF DISTRIBUTION

We may sell the securities being offered by this prospectus separately or together:

- directly to purchasers;
- through agents;
- to or through underwriters;

- through dealers;
- through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction; or
- through a combination of any of these methods of sale.

In addition, we may issue the securities being offered by this prospectus as a dividend or distribution or in a subscription rights offering to our existing security holders. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement or free writing prospectus.

We may effect the distribution of the securities from time to time in one or more transactions:

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

For example, we may engage in at-the-market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. We may also sell securities through a rights offering, forward contracts or similar arrangements. In any distribution of subscription rights to shareholders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to sell the unsubscribed securities to third parties.

The securities issued and sold under this prospectus will have no established trading market, other than our common stock, which is listed on Nasdaq. Any shares of our common stock sold pursuant to this prospectus will be eligible for listing and trading on the Nasdaq, subject to official notice of issuance. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than our common stock, may or may not be listed on a national securities exchange or other trading market.

We will set forth in a prospectus supplement or free writing prospectus:

- the terms of any underwriting or other agreement that we reach relating to sales under this prospectus;;
- the method of distribution of the securities;
- the names of any agents, underwriters or dealers, including any managing underwriters, used in the offering of securities;
- the terms of any direct sales, including the terms of any bidding or auction process, or the terms of any other transactions;
- the compensation payable to agents, underwriters and dealers, which may be in the form of discounts, concessions or commissions;

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any activities that may be undertaken by agents, underwriters and dealers to stabilize, maintain or otherwise affect the price of the securities; and

- any indemnification and contribution obligations owing to agents, underwriters and dealers.

If we sell directly to institutional investors or others, they may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale of the securities. Unless otherwise indicated in a prospectus supplement or free writing prospectus, if we sell through an agent, such agent will be acting on a best efforts basis for the period of its appointment. Any agent may be deemed to be an "underwriter" of the securities as that term is defined in the Securities Act. If a dealer is used in the sale of the securities, we or an underwriter will sell securities to the dealer, as principal. The dealer may resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

We may authorize agents, underwriters and dealers to solicit offers by certain institutional investors to purchase offered securities under contracts providing for payment and delivery on a future date specified in a prospectus supplement or free writing prospectus. The prospectus supplement or free writing prospectus will also describe the public offering price for the securities and the commission payable for solicitation of these delayed delivery contracts. Delayed delivery contracts will contain definite fixed price and quantity terms. The obligations of a purchase under these delayed delivery contracts will be subject to only two conditions:

- that the institution's purchase of the securities at the time of delivery of the securities is not prohibited under the law of any jurisdiction to which the institution is subject; and
- that we shall have sold to the underwriters the total principal amount of the offered securities, less the principal amount covered by the delayed contracts.

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

To the extent permitted by and in accordance with Regulation M under the Exchange Act, any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq during the business day prior to the pricing of an offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement or free writing prospectus.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

No securities may be sold under this prospectus without delivery, in paper format or in electronic format, or both, of the applicable prospectus supplement or free writing prospectus describing the method and terms of the offering.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Hogan Lovells US LLP, Philadelphia, Pennsylvania. As appropriate, legal counsel representing the underwriters, dealers or agents will be named in the accompanying prospectus supplement and may opine to certain legal matters.

EXPERTS

Cherry Bekaert LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2016, which is incorporated by reference in this prospectus and elsewhere in the registration statement. These financial statements are incorporated by reference in reliance on Cherry Bekaert LLP's report, given on their authority as experts in accounting and auditing.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 filed with the SEC on March 28, 2017, as amended by our Annual Report on Form 10-K/A filed with the SEC on May 1, 2017;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2017, June 30, 2017 and September 30, 2017, filed with the SEC on May 15, 2017, July 27, 2017 and November 7, 2017, respectively;
- our Current Reports on Form 8-K as filed on February 3, 2017, March 21, 2017, April 20, 2017, July 20, 2017 (including Item 2.02 and Exhibit 99.1), July 20, 2017 (except Item 7.01 and Exhibits 99.1 and 99.2), as amended by our Current Report on Form 8-K/A filed with the SEC on July 21, 2017, August 15, 2017, September 22, 2017, October 17, 2017, November 7, 2017 (except Item 2.02 and Exhibit 99.1) and November 15, 2017; and
- the description of our capital stock contained in Form 8-A filed with the SEC on February 7, 1997, as amended by that certain Form 8-A filed with the SEC on March 15, 2010, including any amendment or report filed for the purpose of updating such description.

In addition, all documents that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement and all such documents that we file with the SEC after the date of this prospectus and before the termination of the offering of our securities shall be deemed incorporated by reference into this prospectus and to be a part of this prospectus from the respective dates of filing such documents.

Any statement contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document that also is or is deemed to be incorporated by reference in this prospectus modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting our investor relations department at the following address and telephone number: Pernix Therapeutics Holdings, Inc., 10 North Park Place, Suite 201, Morristown, New Jersey 07960, (800) 793-2145. In addition, copies of any or all of the documents incorporated herein by reference may be accessed at our website at <http://www.pernixtx.com>. The information on such website is not incorporated by reference and is not a part of this prospectus.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street NE, Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the SEC's public reference facilities by calling the SEC at 1-800-SEC-0330. You can request copies of these documents, upon payment of a duplicating fee, by writing to the SEC at its principal office at 100 F Street NE, Room 1580, Washington, D.C. 20549-1004. The SEC maintains an Internet website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Our SEC filings are accessible through the Internet at that website. Our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, are also available for download, free of charge, as soon as reasonably practicable after these reports are filed with the SEC, at our website at <http://www.pernixtx.com>. The content contained in, or that can be accessed through, our website is not a part of this prospectus.

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated November 22, 2017.

PROSPECTUS SUPPLEMENT

Up to \$10,675,000

Common Stock

We have entered into a Controlled Equity Offering

SM Sales Agreement, or the sales agreement, with Cantor Fitzgerald & Co., or Cantor, pursuant to which we may offer and sell shares of our common stock from time to time through Cantor, acting as agent, having an aggregate offering price of up to \$100,000,000. As of November 22, 2017, we have sold \$21,895,181.06 of our common stock under the sales agreement pursuant to our registration statement on Form S-3 filed with the Securities and Exchange Commission on November 7, 2014 (File No. 333-200005).

We are subject to General Instruction I.B.6 of Form S-3, which limits the amounts that we may sell under the registration statement of which this prospectus supplement and the accompanying prospectus forms a part. As of November 22, 2017, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was \$36,647,471, which was calculated based on 11,597,301 shares of our outstanding common stock held by non-affiliates at a price of \$3.16 per share, the closing price of our common stock on October 2, 2017. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on the registration statement of which this prospectus is a part in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period if our public float, measured in accordance with such instruction, remains below \$75.0 million. During the 12 calendar months prior to, and including, the date of this Prospectus Supplement, we have sold an aggregate of \$1,523,194.97 of securities pursuant to General Instruction I.B.6 of Form S-3.

Through the date hereof, we have sold shares of our common stock through Cantor under the sales agreement for an aggregate purchase price of \$21,895,181.06, which leaves us with \$78,104,818.94 of our common stock that remains available under the sales agreement. As a result of the limitations of General Instruction I.B.6 and the current public float of our common stock, and in accordance with the terms of the sales agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$10,675,000 from time to time through Cantor. If our public float increases such that we may sell additional amounts under the sales agreement and the prospectus, of which this prospectus supplement is a part, we will file another prospectus supplement prior to making additional sales.

Our common stock is listed on The Nasdaq Global Market under the symbol "PTX."

Sales of our common stock, if any, under this prospectus supplement may be made in sales deemed to be "at-the-market offerings" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended. Cantor will act as sales agent on a best efforts basis and use commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between Cantor and us. There is no arrangement for funds to be received in any escrow, trust or

similar arrangement. JMP Securities LLC, or JMP, is serving as a financial advisor to us in connection with this offering.

Cantor will be entitled to compensation under the terms of the sales agreement at a commission rate equal to up to 3.0% of the gross sales price per share sold. In connection with the sale of the common stock on our behalf, Cantor will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of Cantor will be deemed to be underwriting commissions or discounts.

Investing in our common stock involves risks. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page S-4 and under similar headings in the other documents that are incorporated by reference herein.

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

The date of this prospectus supplement is _____, 2017

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a registration statement that we have filed with the U.S. Securities and Exchange Commission, or the SEC, utilizing a "shelf" registration process. By using a shelf registration statement, we may offer shares of our common stock having an aggregate offering price of up to \$10,675,000 from time to time under this prospectus supplement at prices and on terms to be determined by market conditions at the time of offering.

We provide information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this open market sale agreement prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying base prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this "prospectus," we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying base prospectus, you should rely on this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date, for example, a document incorporated by reference in this prospectus supplement, the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying base prospectus or in any document incorporated by reference in this prospectus supplement having an earlier date than the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. You should also read and consider the additional information under the captions "Incorporation of Certain Information by Reference" and "Where You Can Find More Information" in this prospectus supplement.

You should rely only on the information contained or incorporated by reference in this prospectus supplement, in the accompanying base prospectus, or contained in any free writing prospectus with respect to this offering filed by us with the SEC. We have not, and Cantor has not, authorized anyone to provide you with different information. The distribution of this prospectus supplement and sale of these securities in certain jurisdictions may be restricted by law. We are not, and Cantor is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement and the documents incorporated by reference in this prospectus supplement, and in any free writing prospectus supplement that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

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

References in this prospectus to the terms "the Company," "Pernix," "we," "our" and "us" or other similar terms mean Pernix Therapeutics Holdings, Inc. and our wholly owned subsidiaries, unless we state otherwise or the context indicates otherwise.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the base prospectus, including the documents that we incorporate by reference herein, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. For this purpose, any statements contained herein, other than statements of historical fact, including statements regarding the progress and timing of our product development programs and related trials; our future opportunities; our strategy, future operations, anticipated financial position, future revenues and projected costs; our management's prospects, plans and objectives; and any other statements about management's future expectations, beliefs, goals, plans or prospects constitute forward-looking statements. We may, in some cases, use words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "project," "should," "target," "will," "would" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Among the factors that could cause actual results to differ materially from those indicated in the forward-looking statements are risks and uncertainties inherent in our business including, without limitation: our ability to comply with the covenants under our indebtedness, including our outstanding note securities, our new asset based revolving credit facility and our new delayed draw term loan; the rate and degree of market acceptance of, and our ability and our distribution and marketing partners' ability to obtain reimbursement for, any approved products; our ability to successfully execute our sales and marketing strategy, including to successfully recruit and retain sales and marketing personnel; our ability to obtain additional financing; our ability to maintain regulatory approvals for and the ability to continue to market our products in the United States; our ability to address any adverse impact on our net revenues caused by our ceasing to distribute the combination product isometheptene mucate, dichlorphenazone, and acetaminophen in compliance with United States Food and Drug Administration, or FDA, requirements; the accuracy of our estimates regarding expenses, future revenues and capital requirements; our ability to manage our anticipated future growth; the ability of our products to compete with generic products as well as new products that may be developed by our competitors; our ability and our distribution and marketing partners' ability to comply with regulatory requirements regarding the sales, marketing and manufacturing of our products, including our ability to address the temporary stockout of the 20mg strength of Zohydro ER with BeadTek; the performance of our manufacturers, over which we have limited control; our ability to obtain and maintain intellectual property protection for our products; our ability to operate our business without infringing the intellectual property rights of others; the success and timing of our clinical development efforts; the loss of key scientific or management personnel; regulatory developments in the United States and foreign countries; our ability to either acquire or develop and commercialize other product candidates in addition to our current products; the outcome of any litigation to which we may be subject and other risks described under the heading "Risk Factors" in our most recent annual report on Form 10-K and our quarterly reports on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC. If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. Our forward-looking statements do not reflect the potential impact of any acquisitions, mergers, dispositions, business development transactions, joint ventures or investments we may enter into or make in the future.

You should rely only on information contained, or incorporated by reference, in this prospectus supplement, the accompanying base prospectus, the documents incorporated by reference in this prospectus supplement, and any additional applicable prospectus supplement or free writing prospectus and understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievement. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law. Before deciding to purchase our securities, you should carefully consider the risk factors incorporated herein by reference, in addition to the other information set forth in this prospectus supplement, the accompanying prospectus

base prospectus, any free writing prospectus and in the documents incorporated by reference.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary description about us, our business and this offering highlights selected information contained elsewhere in this prospectus supplement or incorporated in this prospectus supplement by reference. This summary does not contain all of the information you should consider before deciding to invest in our common stock. You should carefully read this entire prospectus supplement, the accompanying base prospectus and any free writing prospectus with respect to this offering filed by us with the SEC, including each of the documents incorporated herein or therein by reference, before making an investment decision. Investors should carefully consider the information set forth under "Risk Factors" on page S-4 and in the documents incorporated by reference into this prospectus supplement or the accompanying base prospectus.

We are a specialty pharmaceutical company focused on improving patients' lives by identifying, developing and commercializing differentiated products that address unmet medical needs. Our strategy is to continue to create shareholder value by:

- growing sales of the existing products in our portfolio in various ways, including identifying new growth opportunities; and
- acquiring additional marketed specialty products or products close to regulatory approval to leverage our existing expertise and infrastructure.

We target underserved segments, such as central nervous system, or CNS, indications, including neurology, pain and psychiatry. We promote our core branded products to physicians through our sales forces. We market our generic products through our wholly owned subsidiaries, Macoven Pharmaceuticals, LLC and Cypress Pharmaceuticals, Inc.

Our branded products include Treximet, a medication indicated for the acute treatment of migraine attacks, with or without aura, in adults, Zohydro ER with BeadTek, an extended-release opioid agonist indicated for the management of pain, and Silenor, a non-controlled substance and approved medication indicated for the treatment of insomnia characterized by difficulty with sleep maintenance.

Corporate Information

Our principal executive office is at 10 North Park Place, Suite 201, Morristown, New Jersey 07960, and our telephone number is (800) 793-2145. Our website address is *www.pernixtx.com*. The information contained in, or accessible through, our website does not constitute part of this prospectus supplement, the accompanying prospectus or any other prospectus supplement. We make available free of charge on our website our annual, quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC. Information contained on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus or any free writing prospectus, and you should not consider information contained on our website as part of this prospectus supplement, the accompanying prospectus or any other prospectus supplement or free writing prospectus.

THE OFFERING

Common stock offered
Shares with an aggregate offering price of up to \$10,675,000.

Plan of Distribution

"At-the-market offering" that may be made from time to time through our agent, Cantor. See "Plan of Distribution."

Use of Proceeds

We intend to use the net proceeds from this offering, if any, for general corporate purposes, which may include, but are not limited to, working capital, repayment of outstanding indebtedness, strategic acquisitions and other potential business development activities, ongoing research and development activities and capital expenditures. See "Use of Proceeds."

Risk Factors

Investing in our common stock involves a high degree of risk. Please read the information contained in and incorporated by reference under the heading "Risk Factors" in this prospectus supplement and under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus supplement, together with the other information included in or incorporated by reference into this prospectus supplement, before deciding whether to invest in our common stock.

Nasdaq Global Market symbol

PTX

RISK FACTORS

An investment in our common stock involves a high degree of risk. Our business, financial condition and results of operations could be materially and adversely affected by any of these risks. If any of these risks occur, the value of our common stock may decline and you may lose all or part of your investment. Before investing in our common stock, you should consider carefully the risk factors set forth in this prospectus supplement, the accompanying base prospectus and contained in any free writing prospectus with respect to this offering filed by us with the SEC, along with the risk factors described in "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2016, as updated by other filings we make with the SEC incorporated by reference into this prospectus supplement.

Additional Risks Related to This Offering

Management will have broad discretion as to the use of the proceeds from this offering, and may not use the proceeds effectively.

Because we have not designated the amount of net proceeds from this offering to be used for any particular purpose, our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. Our management may use the net proceeds for corporate purposes that may not improve our financial condition or market value.

You may experience immediate and substantial dilution.

The offering price per share in this offering may exceed the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 3,706,597 shares of our common stock are sold at a price of \$2.88 per share pursuant to this prospectus, which was the last reported sale price of our common stock on the Nasdaq Global Market on November 20, 2017, for aggregate gross proceeds of approximately \$10.7 million, before deducting commissions and estimated aggregate offering expenses payable by us, you would experience immediate dilution of \$21.15 per share, representing the difference between our as adjusted net tangible book value per share as of September 30, 2017, after giving effect to this offering and the assumed offering price. The conversion of certain of our convertible debt securities convertible into shares of our common stock and the exercise of outstanding stock options and warrants may result in further dilution of your investment. See the section entitled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

A substantial number of shares may be sold in the market following this offering, which may depress the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. A substantial majority of the outstanding shares of our common stock are, and all of the shares sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act, unless these shares are owned or purchased by "affiliates" as that term is defined

in Rule 144 under the Securities Act. In addition, we have also registered the shares of common stock that we may issue under our equity incentive plans. As a result, these shares can be freely sold in the public market upon issuance, subject to restrictions under securities laws.

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USE OF PROCEEDS

We intend to use the net proceeds from this offering, if any, for general corporate purposes, which may include, but are not limited to, working capital, repayment of outstanding indebtedness, strategic acquisitions and other potential business development activities, ongoing research and development activities and capital expenditures. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds to us from this offering. Accordingly, our management will have broad discretion in the timing and application of these proceeds. Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short-term, interest-bearing instruments.

DILUTION

If you invest in this offering, your ownership interest will be diluted to the extent of the difference between the public offering price per share and the as adjusted net tangible book deficit per share after giving effect to this offering. We calculate net tangible book deficit per share by dividing the net tangible book deficit, which is tangible assets less total liabilities, by the number of outstanding shares of our common stock. Dilution represents the difference between the portion of the amount per share paid by purchasers of shares in this offering and the as adjusted net tangible book deficit per share of our common stock immediately after giving effect to this offering. Our net tangible book deficit as of September 30, 2017, was approximately \$(288.6) million, or \$(25.03) per share.

After giving effect to the sale of our common stock pursuant to this prospectus supplement in the aggregate amount of \$10,675,000 at an assumed offering price of \$2.88 per share, the last reported sale price of our common stock on the Nasdaq Global Market on November 20, 2017, and after deducting commissions and estimated aggregate offering expenses payable by us, our net tangible book deficit as of September 30, 2017 would have been \$(278.5) million, or \$(18.27) per share of common stock. This represents an immediate decrease in the net tangible book deficit of \$(6.76) per share to our existing stockholders and an immediate dilution in net tangible book value of \$21.15 per share to new investors. The following table illustrates this per share dilution:

Assumed offering price per share		\$	2.88
Net tangible book deficit per share as of September 30, 2017		\$	(25.03)
Increase per share attributable to new investors		\$	(6.76)
As adjusted net tangible book deficit per share as of September 30, 2017, after giving effect to this offering			\$(18.27)
Dilution per share to new investors purchasing shares in this offering		\$	21.15

The table above assumes for illustrative purposes that an aggregate of 3,706,597 shares of our common stock are sold pursuant to this prospectus supplement at a price of \$2.88 per share, the last reported sale price of our common stock on the Nasdaq Global Market on November 20, 2017, for aggregate gross proceeds of \$10,675,000. The shares are being sold from time to time at various prices pursuant to the sales agreement with Cantor. An increase of \$0.50 per share in the price at which the shares are sold from the assumed offering price of \$2.88 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$10,675,000 is sold at that price, would decrease our adjusted net tangible book deficit per share after the offering to \$(18.95) per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$22.33 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$0.50 per share in the price at which the shares are sold from the assumed offering price of \$2.88 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$10,675,000 is sold at that price, would decrease our adjusted net tangible book deficit per share after the offering to \$(17.38) per share and would decrease the dilution in net tangible book value per share to new investors in this offering to \$19.76 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

The above discussion and table are based on 11,532,423 shares of our common stock issued and outstanding as of September 30, 2017.

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

PLAN OF DISTRIBUTION

In accordance with the terms of our Controlled Equity Offering

SM Sales Agreement, or the sales agreement, with Cantor Fitzgerald & Co., or Cantor, we may offer and sell shares of our common stock from time to time through Cantor, acting as agent, having an aggregate offering price of up to \$100,000,000. Pursuant to this prospectus supplement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$10,675,000 from time to time through Cantor. This summary of the material provisions of the sales agreement does not purport to be a complete statement of its terms and conditions. A copy of our Controlled Equity OfferingSM Sales Agreement that we entered into with Cantor is filed with the SEC as an exhibit to the registration statement of which this prospectus supplement is a part.

Cantor may sell the common stock by any method that is deemed to be an "at-the-market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended.

Each time we wish to issue and sell common stock under the sales agreement, we will notify Cantor of the number of shares to be issued, the dates on which such sales are anticipated to be made and any minimum price below which sales may not be made. Once we have so instructed Cantor, unless it declines to accept the terms of this notice, Cantor has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of Cantor under the sales agreement to sell our common stock are subject to a number of conditions that we must meet.

The settlement between us and Cantor is generally anticipated to occur on the second trading day following the date on which the sale was made. Sales of our common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and Cantor may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

Pursuant to the sales agreement, Cantor will be entitled to a commission equal to an aggregate of up to 3.0% of the gross proceeds we receive from the sales of our common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In connection with the sale of the common stock on our behalf, Cantor will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of each sales agent will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to Cantor with respect to certain civil liabilities, including liabilities under the Securities Act. We have also agreed to reimburse Cantor for certain specified expenses, including the fees and disbursements of its legal counsel in an amount not to exceed \$50,000. The total expenses for the offering, excluding compensation payable to the Cantor under the terms of the sales agreement, were approximately \$150,000.00.

Cantor has entered into a fee sharing agreement with JMP Securities LLC, or JMP, pursuant to which JMP will be entitled to receive one third (1/3) of the net commissions payable to Cantor solely with respect to the additional \$100,000,000 of sales of our common stock under the sales agreement in consideration for JMP's services to us as a financial advisor under this offering. Other than serving as a financial advisor to us, JMP will have no other obligation or responsibility in connection with the sale of the common stock covered by this prospectus supplement.

The offering of common stock pursuant to the sales agreement and this prospectus supplement will terminate upon the earlier of (1) the sale of our common stock provided for in this prospectus supplement, and (2) termination of the sales agreement as permitted therein. We and Cantor may each terminate the sales agreement at any time upon 10 days prior notice.

Cantor and its affiliates have in the past and may in the future provide various investment banking, commercial banking and other financial services for us and our affiliates, for which services they have or may in the future receive customary fees. To the extent required by Regulation M under the Exchange Act, Cantor will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus supplement.

This prospectus supplement in electronic format may be made available on a website maintained by Cantor and Cantor may distribute this prospectus supplement and the accompanying base prospectus electronically.

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LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Hogan Lovells US LLP, Philadelphia, Pennsylvania. Cantor Fitzgerald & Co. is being represented in connection with this offering by Cooley LLP, New York, New York.

EXPERTS

Cherry Bekaert LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2016, which is incorporated by reference in this prospectus supplement and elsewhere in the registration statement. These financial statements are incorporated by reference in reliance on Cherry Bekaert LLP's report, given on their authority as experts in accounting and auditing.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement. Information in this prospectus supplement supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus supplement.

We incorporate by reference into this prospectus supplement and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 filed with the SEC on March 28, 2017, as amended by our Annual Report on Form 10-K/A filed with the SEC on May 1, 2017;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2017, June 30, 2017 and September 30, 2017, filed with the SEC on May 15, 2017, July 27, 2017 and November 7, 2017, respectively;
- our Current Reports on Form 8-K as filed on February 3, 2017, March 21, 2017, April 20, 2017, July 20, 2017 (including Item 2.02 and Exhibit 99.1), July 20, 2017 (except Item 7.01 and Exhibits 99.1 and 99.2), as amended by our Current Report on Form 8-K/A filed with the SEC on July 21, 2017, August 15, 2017, September 22, 2017, October 17, 2017, November 7, 2017 (except Item 2.02 and Exhibit 99.1) and November 15, 2017; and
- the description of our capital stock contained in Form 8-A filed with the SEC on February 7, 1997, as amended by that certain Form 8-A filed with the SEC on March 15, 2010, including any amendment or report filed for the purpose of updating such description.

In addition, all documents that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement and all such documents that we file with the SEC after the date of this prospectus and before the termination of the offering of our securities shall be deemed incorporated by reference into this prospectus supplement and to be a part of this prospectus supplement from the respective dates of filing such documents.

Any statement contained in a document incorporated by reference in this prospectus supplement shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or in any other subsequently filed document that also is or is deemed to be incorporated by reference in this prospectus supplement modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting our investor relations department at the following address and telephone number: Pernix Therapeutics Holdings, Inc., 10 North Park Place, Suite 201, Morristown, New Jersey 07960, (800) 793-2145. In addition, copies of any or all of the documents incorporated herein by reference may be accessed at our website at <http://www.pernixtx.com>. The information on such website is not incorporated by reference and is not a part of this prospectus supplement.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street NE, Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the SEC's public reference facilities by calling the SEC at 1-800-SEC-0330. You can request copies of these documents, upon payment of a duplicating fee, by writing to the SEC at its principal office at 100 F Street NE, Room 1580, Washington, D.C. 20549- 1004. The SEC maintains an Internet website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Our SEC filings are accessible through the Internet at that website. Our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, are also available for download, free of charge, as soon as reasonably practicable after these reports are filed with the SEC, at our website at <http://www.pernixtx.com>. The content contained in, or that can be accessed through, our website is not a part of this prospectus supplement.

Up to \$10,675,000

Common Stock

PROSPECTUS SUPPLEMENT

, 2017

\$150,000,000

Common Stock
Preferred Stock
Debt Securities
Warrants
Units
Subscription Rights

PROSPECTUS

, 2017

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

Set forth below is an estimate (except in the case of the registration fee) of the amount of fees and expenses to be incurred in connection with the issuance and distribution of the offered securities registered hereby, other than underwriting discounts and commission, if any, incurred in connection with the sale of the offered securities. All such amounts will be borne by Pernix Therapeutics Holdings, Inc.

	Amount to be paid
SEC registration fee	\$ 18,675.00
FINRA filing fees	\$ 23,000.00
Printing expenses	\$ (1)
Accounting fees and expenses	\$ (1)
Legal fees and expenses	\$ (1)
Miscellaneous	\$ (1)
Total	\$ (1)

(1) These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers.

Maryland General Corporation Law

. Section 2-405.2 of Maryland General Corporation Law, or the MGCL, permits a Maryland corporation to include in its charter a provision limiting the liability of its directors and officers to the corporation and its stockholders for money damages, except (i) to the extent that it is proved that the director or officer actually received an improper benefit or profit in money, property or services or (ii) if a judgment or other final adjudication is entered in a proceeding based on a finding that the director's or officer's action, or failure to act, was the result of active and deliberate dishonesty and was material to the cause of action adjudicated in the proceeding.

Section 2-418(d) of the MGCL requires a corporation (unless its charter provides otherwise) to indemnify a present or former director of the corporation who has been successful, on the merits or otherwise, in the defense of any proceeding to which such director was made a party by reason of the director's service in that capacity. Section 2-418(b) of the MGCL permits a corporation to indemnify its present or former directors against judgments, penalties, fines, settlements and reasonable expenses actually incurred by the director in connection with any proceeding to which the director is made a party by reason of the director's service as a director, unless it is established that (1) the act or omission of the director was material to the matter giving rise to the proceeding and was committed in bad faith or was the result of active and deliberate dishonesty, (2) the director actually received an improper personal benefit in money, property or services or (3) in the case of any criminal proceeding, the director had reasonable cause to believe that the act or omission was unlawful. If, however, the proceeding was one by or in the right of the corporation and the director was adjudged liable to the corporation, the corporation may not indemnify the director. Section 2-418(f) permits a corporation to pay or reimburse reasonable expenses incurred by a director who is a party to such a proceeding in advance of the final disposition of the proceeding upon receipt by the corporation of (i) a written

affirmation by the director of the director's good faith belief that the standard of conduct necessary for indemnification has been met, and (ii) a written undertaking (that may be unsecured but must be an unlimited general obligation) by or on behalf of the director to repay the amount if it shall ultimately be determined that the standard of conduct has not been met. Section 2-418(j) of the MGCL also requires a corporation to indemnify an officer of the corporation to the same extent that it must indemnify a director as provided in Section 2-418(d) of the MGCL unless limited by the charter and permits a corporation to indemnify and advance expenses to its officers, employees and agents to the same extent that it may indemnify and advance expenses to its directors.

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As permitted by the MGCL, we have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us to indemnify each director and officer to the fullest extent permitted by law and advance expenses to each indemnitee in connection with any proceeding in which indemnification is available.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, 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. No pending material litigation or proceeding involving our directors, executive officers, employees or other agents as to which indemnification is being sought exists, and we are not aware of any pending or threatened material litigation that may result in claims for indemnification by any of our directors or executive officers.

The indemnification provided by statute is not exclusive of any other rights, by indemnification or otherwise, to which a director or officer may be entitled under the charter, bylaws, a resolution of shareholders or directors, an agreement or otherwise.

A Maryland corporation may purchase and maintain insurance on behalf of any person who is or was a director or officer, whether or not the corporation would have the power to indemnify a director or officer against liability under the provision of Section 2-418. Further, a corporation may provide similar protection, including a trust fund, letter of credit or surety bond, not inconsistent with the statute.

Our charter and bylaws limit the liability of our directors and officers for money damages to the Company and its stockholders to the fullest extent permitted from time to time by the MGCL.

Our charter and bylaws provide for indemnification of our officers and directors to the fullest extent permitted under MGCL Section 2-418. Our charter and bylaws also provide that the expenses of officers and directors incurred in defending any action, suit or proceeding, whether civil, criminal, administrative or investigative, shall be paid by us in advance of the final disposition of the action, suit or proceeding to the fullest extent permitted under MGCL Section 2-418.

Our charter and bylaws also require us to purchase and maintain director and officer insurance.

Item 16. Exhibits.

Exhibit No.

Description

1.1*

Form of Underwriting Agreement.

1.2

Controlled Equity Offering

SM Sales Agreement, dated November 7, 2014, by and between Pernix Therapeutics Holdings, Inc. and Cantor Fitzgerald & Co. (incorporated herein by reference to Exhibit 1.2 to the Company's Registration Statement on Form S-3 filed on November 7, 2014 (File No. 333-200005)).

4.1

Articles of Incorporation of Pernix Therapeutics Holdings, Inc., as amended (incorporated herein by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2016 filed on November 10, 2016).

4.2

Bylaws of Pernix Therapeutics Holdings, Inc., as amended (incorporated herein by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2016 filed on November 10, 2016).

4.3

Form of certificate representing shares of common stock of Pernix Therapeutics Holdings, Inc. (incorporated herein by reference to Exhibit 4.1 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2011 filed on March 29, 2012).

- 4.4* Specimen certificate evidencing shares of preferred stock.
- 4.5* Form of any Certificate of Designation setting forth the preferences and rights with respect to any preferred stock issued hereunder.
- 4.6 Indenture, dated February 21, 2014, by and between Pernix Therapeutics Holdings, Inc. and Wilmington Trust, National Association (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on February 26, 2014).
- 4.7 First Supplemental Indenture, dated as of August 19, 2014, among Pernix Therapeutics Holdings, Inc. and Wilmington Trust, National Association, as Trustee (incorporated herein by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed on August 22, 2014).
- 4.8 Second Supplemental Indenture, dated as of August 19, 2014, among Pernix Therapeutics Holdings, Inc. and Wilmington Trust, National Association, as Trustee (incorporated herein by reference to Exhibit 4.4 to the Company's Current Report on Form 8-K filed on August 22, 2014).
- 4.9 Third Supplemental Indenture, dated as of April 21, 2015, between Pernix Therapeutics Holdings, Inc. and Wilmington Trust, National Association, as Trustee (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on April 24, 2015).
- 4.10 Indenture, dated August 19, 2014, among Pernix Therapeutics Holdings, Inc., the Guarantors named therein and U.S. Bank National Association, as Trustee and as Collateral Agent (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on August 22, 2014).
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by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K/A filed on July 21, 2017).

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- 4.15 Form of Senior Indenture between Pernix Therapeutics Holdings, Inc. and one or more trustees to be named (incorporated herein by reference to Exhibit 4.5 to the Company's Registration Statement on Form S-3 filed on November 7, 2014 (File No. 333-200005)).
- 4.16 Form of Subordinated Indenture between Pernix Therapeutics Holdings, Inc. and one or more trustees to be named (incorporated herein by reference to Exhibit 4.6 to the Company's Registration Statement on Form S-3 filed on November 7, 2014 (File No. 333-200005)).
- 4.17* Form of Debt Securities.
- 4.18* Form of Warrant.
- 4.19* Form of Warrant Agreement for Common Stock, including Warrant Certificate for Common Stock.

- 4.20* Form of Warrant Agreement for Preferred Stock, including Warrant Certificate for Preferred Stock.
- 4.21* Form of Warrant Agreement for Debt Securities, including Warrant Certificate for Debt Securities.
- 4.22* Form of Unit Agreement.
- 4.23* Form of Subscription Rights Agreement.

- 5.1 Opinion of Hogan Lovells US LLP.

- 5.2 Opinion of Hogan Lovells US LLP relating to the sales agreement prospectus.

- 12.1* Computation of Ratio of Earnings to Fixed Charges.
- 23.1 Consent of Cherry Bekaert LLP, Independent Registered Public Accounting Firm.
- 23.2 Consent of Hogan Lovells US LLP (included in Exhibits 5.1 and 5.2).
- 24.1 Power of Attorney (included on signature page hereto).
- 25.1** Form T-1 Statement of Eligibility and Qualification under the Trust Indenture Act of 1939 of Trustee for Form of Indenture.

* To be filed by amendment or as an exhibit to a report pursuant to Section 13(a), 13(c) or 15(d) of the Exchange Act.

** To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939 and Rule 5b-3 thereunder.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

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

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information 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 SEC 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;

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provided, however

, that paragraphs (i), (ii) and (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 SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act 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.

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

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

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act 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 the 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; or

(6) That, for the purpose of determining liability of the registrant under the Securities Act 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.

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(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) 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.

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

(j) 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 SEC under Section 305(b)(2) of the Act.

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- 24.1 Power of Attorney (included on signature page hereto).

25.1** Form T-1 Statement of Eligibility and Qualification under the Trust Indenture Act of 1939 of Trustee for Form of Indenture.

* To be filed by amendment or as an exhibit to a report pursuant to Section 13(a), 13(c) or 15(d) of the Exchange Act.

** To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939 and Rule 5b-3 thereunder.

SIGNATURES

Pursuant to the requirements of the Securities Act, 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 town of Morristown, the State of New Jersey, on November 22, 2017.

PERNIX THERAPEUTICS
HOLDINGS, INC.

By: /s/ JOHN
SEDOR
John Sedor
Chief
Executive
Officer and
Chairman

POWER OF ATTORNEY

Each of the undersigned directors and officers of Pernix Therapeutics Holdings, Inc. hereby constitutes and appoints each of John Sedor and Kenneth R. Piña of Pernix Therapeutics Holdings, Inc., his true and lawful attorneys-in-fact and agents with full power of substitution and resubstitution, for him and his name, place and stead, in any and all capacities, to execute any and all amendments (including post-effective amendments) to this registration statement, to sign any registration statement related to this registration statement filed pursuant to Rule 462(b) of the Securities Act of 1933, and to cause the same to be filed with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and desirable to be done in and about the premises as fully and to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all acts and things that said attorneys-in-fact and agents or any of them, or their or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Signature

Title

Date

/s/ JOHN SEDOR

Chief Executive Officer and Chairman

November 22, 2017

John Sedor

(Principal Executive Officer)

/S/ GRAHAM MIAO

President and Chief Financial Officer

November 22, 2017

Graham Miao

(Principal Financial Officer)

/S/ MICHAEL GOLEMBIEWSKI

Vice President of Accounting and
Corporate Controller

November 22, 2017

Michael Golembiewski

(Principal Accounting Officer)

/S/ DENNIS LANGER

Director

November 22, 2017

Dennis Langer

/S/ GABRIEL LEUNG

Director

November 22, 2017

Gabriel Leung

/S/ DOUGLAS SWIRSKY

Director

November 22, 2017

Douglas Swirsky

/S/ JOHN LEONE

Director

November 22, 2017

John Leone
