

PERNIX THERAPEUTICS HOLDINGS, INC.  
Form 424B5  
July 20, 2017

**Filed Pursuant to Rule 424(b)(5)**  
**Registration No. 333-200005**

## **PROSPECTUS SUPPLEMENT**

**(To the Prospectus Dated November 25, 2014)**

**Up to \$16,075,000**

### **Common Stock**

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This Prospectus Supplement amends and supplements the information in our registration statement and prospectus, dated November 25, 2014 (File No. 333- 200005) (the “Prospectus”). This Prospectus Supplement should be read in conjunction with the Prospectus, and is qualified by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the Prospectus. This Prospectus Supplement is not complete without, and may only be delivered or utilized in connection with, the Prospectus, and any future amendments or supplements thereto.

We filed the Prospectus on November 7, 2014 to register the offer and sale of shares of our common stock from time to time pursuant to the terms of that certain Controlled Equity Offering<sup>SM</sup> Sales Agreement, dated November 7, 2014 (the “Sales Agreement”), we entered into with Cantor Fitzgerald & Co. (“Cantor”), acting as the agent.

As of July 20, 2017, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was \$48,275,389, which was calculated based on 10,015,641 shares of our outstanding common stock held by non-affiliates at a price of \$4.82 per share, the closing price of our common stock on July 14, 2017. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell shares pursuant to this Prospectus Supplement with a value of more than one-third of the aggregate market value of our common stock held by non-affiliates in any 12-month period, so long as the aggregate market value of our common stock held by non-affiliates is less than \$75,000,000. During the 12 calendar months prior to, and including, the date of this Prospectus Supplement, we have not sold any 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 pursuant to the Prospectus for an aggregate purchase price of \$20,371,989, which leaves us with \$79,628,011 of our common stock that remains available under the Sales Agreement. We are filing this Prospectus Supplement to amend the Prospectus to update the amount of shares we are eligible to sell under General Instruction I.B.6 and pursuant to the Sales Agreement. As a result of these limitations 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 \$16,075,000 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.”

**Investing in our common stock involves a high degree of risk. See “Risk Factors” contained in the documents we incorporate by reference in this prospectus supplement to read about factors you should consider before investing in our securities.**

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

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**The date of this prospectus supplement is July 20, 2017.**