

TESARO, Inc.
Form 424B5
November 17, 2016

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[TABLE OF CONTENTS](#)
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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-212324

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be Registered(1)(2)	Proposed Maximum Offering Price per Share	Proposed Maximum Aggregate Offering Price(1)(2)	Amount of Registration Fee
Common Stock, par value \$0.0001 per share	2,012,500	\$135.00	\$271,687,500	\$31,488.59

(1) Assumes exercise in full of the underwriters' option to purchase up to 262,500 additional shares of common stock of the Registrant.

(2) Calculated in accordance with Rule 457(r) under the Securities Act of 1933, as amended, and relates to the Registration Statement on Form S-3 (File No. 333-212324) filed by the Registrant on June 30, 2016.

**PROSPECTUS SUPPLEMENT
(TO PROSPECTUS DATED JUNE 30, 2016)**

1,750,000 Shares

TESARO, Inc.

Common Stock

\$135.00 per share

We are offering 1,750,000 shares of our common stock in this offering.

Our common stock is traded on the NASDAQ Global Select Market under the symbol "TSRO." On November 14, 2016, the last reported sale price of our common stock was \$148.50 per share.

You should read carefully this prospectus supplement, the accompanying prospectus, and the documents incorporated by reference in this prospectus supplement before you invest. Investing in our common stock involves risks. Please review "Risk Factors" on page S-5 of this prospectus supplement and page 1 of the accompanying prospectus and the risk factors described in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

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 supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$135.00	\$236,250,000
Underwriting discounts and commissions(1)	\$6.75	\$11,812,500
Proceeds to TESARO, before expenses	\$128.25	\$224,437,500

(1) We refer you to "Underwriting" beginning on page S-19 for additional information regarding total underwriting compensation.

We have granted the underwriters an option for a period of 30 days to purchase up to 262,500 additional shares of our common stock from us.

The underwriters expect to deliver the shares on or about November 18, 2016.

Citigroup

Leerink Partners

Credit Suisse

Wells Fargo Securities

Baird

FBR

Guggenheim Securities

Raymond James

SunTrust Robinson Humphrey

Wedbush PacGrow

The date of this prospectus supplement is November 15, 2016.

TABLE OF CONTENTS

	Page
Prospectus Supplement	
<u>This Prospectus Supplement</u>	S-ii
<u>Prospectus Supplement Summary</u>	S-1
<u>Risk Factors</u>	S-5
<u>Where You Can Find More Information</u>	S-7
<u>Incorporation of Certain Information by Reference</u>	S-7
<u>Cautionary Note Regarding Forward-Looking Statements</u>	S-8
<u>Use of Proceeds</u>	S-10
<u>Capitalization</u>	S-11
<u>Dilution</u>	S-13
<u>Material U.S. Federal Income Tax Consequences to Non-U.S. Holders of Common Stock</u>	S-14
<u>Underwriting</u>	S-19
<u>Legal Matters</u>	S-24
<u>Experts</u>	S-24
<u>Prospectus</u>	
<u>Risk Factors</u>	1
<u>Where You Can Find More Information</u>	39
<u>Incorporation of Certain Information by Reference</u>	39
<u>Cautionary Note Regarding Forward-Looking Statements</u>	40
<u>Industry and Market Data</u>	41
<u>About the Company</u>	42
<u>Use of Proceeds</u>	42
<u>Ratio of Earnings to Fixed Charges</u>	43
<u>Description of Our Common Stock</u>	43
<u>Description of Debt Securities</u>	50
<u>Description of Preferred Stock</u>	62
<u>Description of Warrants</u>	64
<u>Description of Units</u>	64
<u>Selling Security holders</u>	65
<u>Legal Matters</u>	65
<u>Experts</u>	65

THIS PROSPECTUS SUPPLEMENT

This document is in two parts, both of which are part of a shelf registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, on June 30, 2016, pursuant to which we may from time to time offer various securities in one or more offerings. The first part of this document is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus. The second part is the accompanying prospectus, which gives more general information about the shares of our common stock and other securities we may offer from time to time under our shelf registration statement, some of which may not apply to the shares of common stock offered by this prospectus. When we refer to this "prospectus," we are generally referring to both parts of this document combined. 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 prospectus or any document incorporated by reference into this prospectus, on the other hand, you should rely on the prospectus supplement unless the document incorporated by reference has a later date than this prospectus supplement, in which case you should rely on the document with a later date.

You should rely only on information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus. We have not authorized any other person to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. The information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein is accurate only as of the dates of the respective documents in which such information is included, regardless of the time of delivery of this prospectus supplement or any sale of the shares of common stock offered hereby.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where such offers and sales are permitted.

Unless the context otherwise requires or as otherwise expressly stated, references in this prospectus supplement and the accompanying prospectus to the "Company," "TESARO," "we," "us" and "our" and similar terms refer to TESARO, Inc. and our subsidiaries on a consolidated basis, as appropriate in the context.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

The following summary highlights information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus and is qualified in its entirety by the more detailed information and consolidated financial statements included elsewhere or incorporated by reference in this prospectus supplement. This summary does not contain all of the information that may be important to you. You should read and carefully consider the following summary together with the entire prospectus supplement and accompanying prospectus, including the documents incorporated by reference herein and therein, before deciding to invest in our common stock. Some of the statements in this prospectus constitute forward-looking statements that involve risks and uncertainties. See "Cautionary Note Regarding Forward-Looking Statements and Industry Data." Our actual results could differ materially from those anticipated in such forward-looking statements as a result of certain factors, including those discussed in the "Risk Factors" and other sections of this prospectus supplement and the accompanying prospectus.

Overview

We are an oncology-focused biopharmaceutical company dedicated to improving the lives of cancer patients. We have in-licensed and are currently developing several oncology-related product candidates, including rolapitant, niraparib, and the product candidates under our immuno-oncology platform.

On September 1, 2015, our first commercial product, VARUBI, which is the oral formulation of rolapitant, was approved by the United States Food and Drug Administration, or FDA, for use in combination with other antiemetic agents in adults for the prevention of delayed nausea and vomiting associated with initial and repeat courses of emetogenic cancer chemotherapy, including, but not limited to, highly emetogenic chemotherapy. We commenced shipments of VARUBI to distributors in November 2015.

A summary description of our current products and product candidates is as follows:

Rolapitant is a potent and long-acting neurokinin-1, or NK-1, receptor antagonist for the prevention of chemotherapy induced nausea and vomiting, or CINV. The oral form of rolapitant, VARUBI, has been approved for commercialization in the United States, and we are also developing an intravenous, or IV, formulation of rolapitant. In March 2016, we submitted a new drug application, or NDA, for IV rolapitant to the FDA which was accepted for review in May 2016, with a target Prescription Drug User Fee Act, or PDUFA, date of January 11, 2017. We also submitted a Marketing Authorization Application, or MAA, for oral rolapitant to the European Medicines Agency, or EMA, in March 2016, which the EMA has accepted for review.

Niraparib is an orally active and potent poly (ADP-ribose) polymerase, or PARP, inhibitor. We currently have several ongoing clinical trials evaluating niraparib for the treatment of ovarian or breast cancers, and we expect to initiate further clinical trials of niraparib during 2016. We are also collaborating with various other organizations to evaluate niraparib in combination with other therapeutics for the treatment of various cancers. Based on research related to PARP inhibitors generally, we believe that niraparib may also be active in the treatment of several other tumor types. In June 2016, we announced that the Phase 3 NOVA trial of niraparib successfully achieved its primary endpoint, demonstrating that niraparib significantly prolonged progression-free survival, or PFS, compared to control among patients with platinum-sensitive, recurrent ovarian cancer. In October 2016, we submitted an NDA to the FDA and an MAA to the EMA for the approval of niraparib for the maintenance treatment of patients with platinum-sensitive, recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who are in response to platinum-based chemotherapy. This proposed indication provides for the use of niraparib regardless of tumor biomarker status, although we anticipate that the diagnostic tests will be available as complementary diagnostics. The EMA has accepted the MAA for review.

Table of Contents

In April 2016, we entered into a global prostate cancer collaboration and license agreement, or the Collaboration Agreement, with Janssen Biotech, Inc., or Janssen, under which we granted Janssen licenses under certain patent rights and know-how relating to niraparib, for prostate cancer worldwide, except for Japan. We retain all rights worldwide to develop and commercialize niraparib outside of prostate cancer.

In September 2016, we entered into a collaboration, development and license agreement with Zai Lab (Shanghai) Co., Ltd., or Zai Lab. Under the terms of the agreement, we granted to Zai Lab an exclusive license to develop and commercialize niraparib for the territories of China, Hong Kong and Macao, or the China Territories. In partial consideration for the license grant to Zai Lab for the China Territories, Zai Lab will pay us a non-refundable, up-front license fee of \$15.0 million in the fourth quarter of 2016. In return for certain consideration, we also have an option to co-market niraparib in the China Territories with Zai Lab; if we elect not to exercise this option, we will be eligible to receive tiered royalties based on percentages of net sales of niraparib in the China Territories ranging from the mid-to high-teens. We will be eligible to receive milestone payments contingent on Zai Lab achieving certain specified development and commercial goals. This agreement also provides the Company with the right of first refusal with respect to licenses for two novel, discovery-stage immuno-oncology programs from Zai Lab.

Immuno-Oncology Platform: In March 2014, we added immuno-oncology programs to our portfolio of product candidates by entering into a collaboration and exclusive license agreement with AnaptysBio, Inc., or AnaptysBio, for the discovery and development of antibodies for several immuno-oncology targets. We submitted an investigational new drug application, or IND, for our first immuno-oncology antibody, TSR-042, which targets PD-1, to the FDA in December 2015, and we initiated a Phase 1, dose escalation study in March 2016. In April 2016, we submitted an IND to the FDA for our second immuno-oncology antibody, TSR-022, which targets TIM-3, and in July 2016, we commenced the dosing of the first patient in a Phase 1, dose escalation study. We have commenced pre-clinical research for our antibody candidate targeting LAG-3, TSR-033, and expect to file an IND and to initiate a Phase 1 study during 2017. As part of our collaboration with AnaptysBio, we received exclusive rights to monospecific antibody product candidates targeting PD-1, TIM-3, and LAG-3 and bi-specific antibody product candidates targeting PD-1/TIM-3, PD-1/LAG-3 and an additional bi-specific combination. In addition, we plan to evaluate our immuno-oncology anti-tumor agents, such as TSR-042, in combination preclinical pharmacology studies with niraparib and other anti-tumor agents.

We intend to continue to leverage the experience and competencies of our senior management team to identify, acquire, develop and commercialize cancer therapeutics, including those that are potentially safer and more effective than existing treatments.

Our principal executive offices are located at 1000 Winter Street, Suite 3300, Waltham, Massachusetts 02451, and our telephone number is (339) 970-0900. Our internet website is www.tesarobio.com. We make our electronic filings with the Securities Exchange Commission, or the SEC, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports, available on our website free of charge as soon as practicable after we file or furnish them with the SEC. Information on our website is not a part of, or incorporated by reference into, this prospectus.

Table of Contents

The Offering

Common stock offered	1,750,000 shares of common stock
Common stock to be outstanding immediately following this offering	53,406,692 shares
Option	Up to 262,500 shares of common stock
Use of proceeds	We expect to use the net proceeds from this offering to advance the development of our pipeline, for working capital and other general corporate purposes. See "Use of Proceeds" on page S-10 of this prospectus supplement.
Risk factors	In analyzing an investment in the shares of common stock being offered pursuant to this prospectus supplement, you should carefully consider, along with other matters included or incorporated by reference in this prospectus supplement or the accompanying prospectus, the information set forth under "Risk Factors" in this prospectus supplement and in the accompanying prospectus and the risks discussed in the documents incorporated by reference in this prospectus supplement, as they may be amended, updated or modified periodically in our reports filed with the SEC.
NASDAQ Global Select Market symbol	TSRO

The number of shares of our common stock to be outstanding immediately following this offering set forth above is based on 51,656,692 shares of our common stock outstanding as of September 30, 2016, and excludes:

7,045,369 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted-average exercise price of \$38.96 per share;

666,073 shares of our common stock reserved for issuance as of September 30, 2016 in connection with restricted stock units issued under our equity compensation plans;

919,959 shares of our common stock reserved as of September 30, 2016 for future issuance under the TESARO, Inc. 2012 Omnibus Incentive Plan, or the 2012 Plan, as amended in May 2015, plus any annual increases in the number of shares of common stock reserved for future issuance under the 2012 Plan pursuant to an "evergreen provision," and any other shares that may become issuable under the 2012 Plan pursuant to its terms;

297,544 shares of our common stock reserved as of September 30, 2016 for future issuance under the TESARO, Inc. 2015 Non-Employee Director Stock Incentive Plan, or the 2015 Director Plan, plus any other shares that may become issuable under the 2015 Director Plan pursuant to its terms;

211,498 shares of our common stock reserved as of September 30, 2016 for future issuance under the TESARO, Inc. 2012 Employee Stock Purchase Plan, or the ESPP, plus any other shares that may become issuable under the ESPP pursuant to its terms; and

additional shares of our common stock reserved for issuance upon the conversion of the \$201,250,000 in 3.0% convertible senior notes that we have outstanding, at a conversion rate of 28.4627 for each \$1,000 in principal amount, which represents an initial conversion price of \$35.13 per share (such conversion rate and price subject to adjustment upon the occurrence of

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Table of Contents

certain events), the impact of which may be reduced by our potential exercise of capped call options, at an exercise price equivalent to the conversion price for the convertible notes and subject to an exercise price cap of \$45.54 per share.

Except as otherwise indicated, the information in this prospectus assumes or gives effect to no exercise by the underwriters of their option to purchase up to 262,500 additional shares of common stock from us.

S-4

Table of Contents

RISK FACTORS

An investment in our securities involves a high degree of risk. Before making an investment decision you should carefully consider the risks described below and the risks and uncertainties described in the Risk Factors section of the accompanying prospectus, in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2015, and subsequently filed SEC reports, including in Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, all of which are incorporated by reference herein, and the other information set forth or incorporated by reference in this prospectus supplement and the accompanying prospectus. The risks and uncertainties described or incorporated by reference in this prospectus supplement and the accompanying prospectus are not the only ones we face. Additional risks and uncertainties that we are unaware of or that we believe are not material at this time could also materially adversely affect our business, financial condition or results of operations. In any case, the value of our common stock could decline, and you could lose all or part of your investment, or our use of the offering proceeds may not yield a favorable return on your investment. You should also refer to our financial statements and the notes to those statements, which are incorporated by reference in this prospectus supplement. See also the information contained under the heading "Cautionary Note Regarding Forward-Looking Statements" immediately below.

Risks Related to This Offering

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of \$121.65 per share.

This dilution is due to our investors who purchased shares prior to this offering having paid substantially less than the price offered to the public in this offering when they purchased their shares. In addition, options to purchase 7,045,369 shares of our common stock at a weighted-average exercise price of \$38.96 per share were outstanding as of September 30, 2016, 666,073 shares of our common stock are reserved for issuance as of September 30, 2016 in connection with restricted stock units issued under our equity compensation plans and additional shares of our common stock are reserved for issuance upon the conversion of the \$201,250,000 in 3.0% convertible senior notes, that we have outstanding, at a conversion rate of 28.4627 for each \$1,000 in principal amount, which represents an initial conversion price of \$35.13 per share (such conversion rate and price subject to adjustment upon the occurrence of certain events), the impact of which may be reduced by our potential exercise of capped call options, at an exercise price equivalent to the conversion price for the convertible notes and subject to an exercise price cap of \$45.54 per share. The exercise of any of these options or the issuance of any of these shares would result in additional dilution. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. Further, because we may need to raise additional capital to fund our clinical development programs, we may in the future sell substantial amounts of common stock or securities convertible into or exchangeable for common stock. These future issuances of common stock or common stock-related securities, together with the exercise of outstanding options and any additional shares issued in connection with acquisitions, if any, may result in further dilution to investors. For a further description of the dilution that you will experience immediately after this offering, see "Dilution."

Table of Contents

We have broad discretion in the use of the net proceeds from this offering and may not use such amounts effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. You will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. Pending our use of the net proceeds, we may invest the net proceeds from this offering in short-term, interest-bearing investment grade securities, money market funds, certificates of deposit or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change" (generally defined as a greater than 50 percentage points change (by value) in the ownership of its equity by certain significant stockholders over a rolling three year period), the corporation's ability to use its pre-change net operating loss carryforwards and certain other pre-change tax attributes to offset its post-change income and taxes may be limited. We may have experienced such ownership changes in the past, and we may experience ownership changes in the future as a result of this offering or subsequent shifts in our stock ownership, some of which are outside our control. If we become profitable, limitations on our ability to utilize our net operating loss carryforwards could result in an increased tax liability to our company, which could adversely affect our results.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We file periodic reports, proxy statements and other information with the SEC in accordance with the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act. You may read and copy (at prescribed rates) any such reports, proxy statements and other information at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. Our SEC filings are also available to you on the SEC's website at <http://www.sec.gov> and in the Investors section of our website at <http://www.tesarobio.com>. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus supplement or the accompanying prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are incorporating information into this prospectus supplement and the accompanying prospectus by reference, which means that we are disclosing important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus supplement, except to the extent superseded by information contained in this prospectus supplement.

This prospectus supplement incorporates by reference the documents set forth below, the file number for each of which is 001-35587, that have been previously filed with the SEC and any additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering covered by this prospectus supplement, other than those documents or portions of those documents that are deemed not filed, such as information furnished under Items 2.02 and 7.01 of any Current Report on Form 8-K, including related exhibits:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 (including the portions of our proxy statement for our 2016 annual meeting of stockholders incorporated by reference therein);

our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2016, June 30, 2016 and September 30, 2016;

our Current Reports on Form 8-K filed with the SEC on January 11, 2016 (Item 8.01), March 14, 2016, April 4, 2016 (as amended on May 13, 2016), April 11, 2016, May 12, 2016, June 6, 2016 (Item 8.01), June 29, 2016, June 30, 2016, July 7, 2016 and September 29, 2016 (Item 1.01); and

the description of our common stock contained in our registration statement on Form 8-A filed under the Exchange Act on June 27, 2012, including any amendment or report filed for the purpose of updating such description.

You may obtain copies of any of these filings by contacting us at the address and telephone number indicated below or by contacting the SEC as described above under the section entitled "Where You Can Find More Information." Documents incorporated by reference are available from us without charge, excluding all exhibits unless an exhibit has been specifically incorporated by reference into this prospectus supplement, by requesting them in writing or by telephone at:

TESARO, Inc.
Attention: Corporate Secretary
1000 Winter Street, Suite 3300
Waltham, Massachusetts 02451
(339) 970-0900

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus contains and incorporates by references certain forward-looking statements. Any accompanying prospectus supplement may also do so. We may, in some cases, use terms such as "believes," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should," "approximately" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our commercialization plans for rolapitant, including the progress of the commercial launch of VARUBI and the potential timing of the launch of the IV formulation, our expectations regarding the uses for which niraparib may receive regulatory approval, if at all, including whether the use of niraparib will depend on a patient's biomarker status, our intent to in-license or acquire additional product candidates, our ongoing and planned preclinical studies and clinical trials, our expectations regarding discovery or development of immunotherapy antibodies, including the expected timing, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, the degree of clinical utility of our product candidates, particularly in specific patient populations, expectations regarding clinical trial data, our results of operations, cash needs, spending of the proceeds from this offering, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, industry change and depend on economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus supplement, the accompanying prospectus, or any document incorporated by reference herein, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and events in the industry in which we operate may differ materially from the forward-looking statements contained in this prospectus supplement, the accompanying prospectus and any document incorporated by reference herein. In addition, even if our results of operations, financial condition and liquidity, and events in the industry in which we operate are consistent with the forward-looking statements contained in this prospectus supplement and the accompanying prospectus, they may not be predictive of results or developments in future periods.

Actual results could differ materially from our forward-looking statements due to a number of factors, including risks related to:

uncertainties inherent in the development, launch or commercialization of any new pharmaceutical product and the execution and completion of clinical trials, including establishing U.S. and ex-U.S. sales, distribution, and marketing capabilities;

the difficulties in obtaining and maintaining regulatory approval of our product candidates, and the scope of and labeling under any approval we may obtain, including whether any approval will be conditioned on the use of a companion diagnostic test;

uncertainties surrounding the success and timing of availability of data from our preclinical studies and clinical trials, ongoing discussions with and actions by regulatory authorities, patient accrual rates for clinical trials, manufacturing and supply risks, and other matters that could affect the timing of data, the potential regulatory approval, or the commercial availability of our product candidates or the success of any product;

the rate and degree of market acceptance of any of our product candidates;

Table of Contents

the size and growth of the potential markets for our product candidates and our ability to serve those markets;

our use of the proceeds from this offering;

our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;

obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;

regulatory developments in the United States and foreign countries;

the coverage and reimbursement of our product and product candidates, if approved;

recently enacted and future legislation regarding the healthcare system;

our ability to recruit or retain key scientific or management personnel or to retain our executive officers;

the success of competing therapies and products that are or become available; and

the performance of third parties, including contract research organizations and third-party manufacturers.

Any forward-looking statements that we make in this prospectus supplement, the accompanying prospectus and documents incorporated by reference speak only as of the date of such statement, and we undertake no obligation to update such statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of unanticipated events. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

You should also read carefully the factors described in the "Risk Factors" sections of this prospectus supplement and the accompanying prospectus and elsewhere to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus supplement and the accompanying prospectus supplement will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all. The Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act do not protect any forward-looking statements that we make in connection with this offering.

We obtained the industry, market and competitive position data in this prospectus, any accompanying prospectus supplement and documents incorporated by reference from our own internal estimates and research as well as from industry and general publications and research surveys and studies conducted by third parties. While we believe that each of these studies and publications is reliable, we have not independently verified market and industry data from third-party sources. While we believe our internal company research is reliable and the market definitions we use are appropriate, neither such research nor these definitions have been verified by any independent source.

Table of Contents

USE OF PROCEEDS

We expect that our net proceeds from the sale of the shares of common stock in this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$224.1 million.

We expect to use the net proceeds from this offering to advance the development of our pipeline, for working capital and other general corporate purposes.

Although it is difficult to predict future liquidity requirements, we believe that the net proceeds from this offering and our existing cash and cash equivalents will be sufficient to fund our operations for at least the next 12 months.

The expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures depend on numerous factors, including the ongoing status of and results from our clinical trials and other studies, the progress of our preclinical development efforts and any unforeseen cash needs. As a result, our management will have broad discretion in applying the net proceeds of this offering.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds of this offering in a variety of capital preservation investments, including short-term, interest-bearing investment grade securities, money market funds, certificates of deposit and direct or guaranteed obligations of the U.S. government.

Table of Contents**CAPITALIZATION**

The following table sets forth our consolidated cash and cash equivalents and our consolidated capitalization as of September 30, 2016 on an:

actual basis; and

as adjusted basis giving effect to the sale of 1,750,000 shares of our common stock offered in this offering at a public offering price of \$135.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, assuming the underwriters' option to purchase additional shares is not exercised.

You should read this table in conjunction with the information contained in "Use of Proceeds" on page S-10 of this prospectus supplement, as well as our condensed consolidated financial statements and the accompanying notes in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2016, incorporated by reference in this prospectus supplement and the accompanying prospectus.

	As of September 30, 2016	
	Actual	As Adjusted (unaudited)
	(all amounts in 000's except share data)	
Cash and cash equivalents	\$ 647,315	\$ 871,464
Debt:		
Convertible notes, net	129,017	129,017
Total debt	129,017	129,017
Stockholders' equity:		
Preferred stock, par value \$0.0001 per share; 10,000,000 shares authorized and no shares issued or outstanding, actual and as adjusted		
Common stock, par value \$0.0001 per share; 100,000,000 shares authorized and 51,656,692 shares issued and outstanding, actual; and 100,000,000 shares authorized and 53,406,692 shares issued and outstanding, as adjusted	5	5
Additional paid-in capital	1,356,040	1,580,189
Accumulated other comprehensive income (loss)	(98)	(98)
Accumulated deficit	(853,726)	(853,726)
Total stockholders' equity	502,221	726,370
Total capitalization	\$ 631,238	\$ 855,387

The number of shares of our common stock to be outstanding immediately following this offering set forth above is based on 51,656,692 shares of our common stock outstanding as of September 30, 2016, and excludes:

7,045,369 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted-average exercise price of \$38.96 per share;

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666,073 shares of our common stock reserved for issuance as of September 30, 2016 in connection with restricted stock units issued under our equity compensation plans;

919,959 shares of our common stock reserved for future issuance as of September 30, 2016 under the TESARO, Inc. 2012 Omnibus Incentive Plan, or the 2012 Plan, as amended in May 2015, plus any annual increases in the number of shares of common stock reserved for future

S-11

Table of Contents

issuance under the 2012 Plan pursuant to an "evergreen provision," and any other shares that may become issuable under the 2012 Plan pursuant to its terms;

297,544 shares of our common stock reserved for future issuance as of September 30, 2016 under the TESARO, Inc. 2015 Non-Employee Director Stock Incentive Plan, or the 2015 Director Plan, plus any other shares that may become issuable under the 2015 Director Plan pursuant to its terms;

211,498 shares of our common stock reserved for future issuance as of September 30, 2016 under the TESARO, Inc. 2012 Employee Stock Purchase Plan, or the ESPP, plus any other shares that may become issuable under the ESPP pursuant to its terms; and

additional shares of our common stock reserved for issuance upon the conversion of the \$201,250,000 in 3.0% convertible senior notes that we have outstanding, at a conversion rate of 28.4627 for each \$1,000 in principal amount, which represents an initial conversion price of \$35.13 per share (such conversion rate and price subject to adjustment upon the occurrence of certain events), the impact of which may be reduced by our potential exercise of capped call options, at an exercise price equivalent to the conversion price for the convertible notes and subject to an exercise price cap of \$45.54 per share.

Table of Contents**DILUTION**

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the price per share of our common stock in this offering and the pro forma as adjusted net tangible book value per share of our common stock upon closing of this offering. Net tangible book value per share of our common stock is determined at any date by subtracting our total liabilities from the amount of our total tangible assets (total assets less intangible assets) and dividing the difference by the number of shares of our common stock deemed to be outstanding at that date.

Our historical net tangible book value as of September 30, 2016 was approximately \$488.9 million, or \$9.46 per share, based on 51,656,692 shares of common stock outstanding as of September 30, 2016.

After giving effect to the sale of 1,750,000 shares of our common stock offered in this offering at a public offering price of \$135.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, assuming the underwriters' option to purchase additional shares is not exercised, our as adjusted net tangible book value as of September 30, 2016 would have been \$713.0 million, or \$13.35 per share. This amount represents an immediate increase in net tangible book value of \$3.89 per share of our common stock to existing stockholders and an immediate dilution in net tangible book value of \$121.65 per share of our common stock to new investors purchasing shares of common stock in this offering.

The following table illustrates this dilution on a per share basis:

Public offering price per share	\$ 135.00
Historical net tangible book value per share as of September 30, 2016	\$ 9.46
As adjusted increase in net tangible book value per share attributable to investors participating in this offering	3.89
As adjusted net tangible book value per share after this offering	\$ 13.35
Dilution per share to new investors	\$ 121.65

If the underwriters exercise their option to purchase 262,500 additional shares in full at the public offering price of \$135.00 per share, the as adjusted net tangible book value will increase to \$13.91 per share, representing an immediate increase to existing stockholders of \$4.45 per share and an immediate dilution of \$121.09 per share to new investors. If any shares are issued upon exercise of outstanding options at prices below the public offering price, you will experience further dilution.

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 we raise additional capital by issuing equity securities or convertible debt, your ownership will be further diluted.

Table of Contents

**MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF
COMMON STOCK**

The following is a summary of the material U.S. federal income tax consequences of the acquisition, ownership and disposition of shares of our common stock purchased pursuant to this offering by a beneficial owner that is a "non-U.S. holder." As used in this summary, a non-U.S. holder means a beneficial owner of our common stock that is not a partnership (or other entity treated as a partnership for U.S. federal income tax purposes regardless of its place of organization or formation), an entity that is treated as a disregarded entity for U.S. federal income tax purposes (regardless of its place of organization or formation) or any of the following:

a citizen or individual resident of the United States;

a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

a trust (1) which is subject to primary supervision by a court situated within the United States and as to which one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of the trust or (2) that has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person for U.S. federal income tax purposes.

This summary is based on current provisions of the Internal Revenue Code of 1986, as amended, which we refer to as the Code, final, temporary, and proposed Treasury regulations promulgated under the Code, judicial opinions, and administrative pronouncements and published rulings of the U.S. Internal Revenue Service, or IRS, all as in effect as of the date of this prospectus supplement. Changes to any of these authorities after the date of this prospectus supplement may affect the tax consequences described in this summary, or the IRS might interpret the existing authorities differently. In either case, the tax considerations of acquiring, owning or disposing of our common stock could differ from those described below. We have not requested a ruling from the IRS with respect to the statements made and the conclusions reached in the following summary, and we cannot assure you that the IRS will agree with those statements and conclusions. This discussion assumes that the non-U.S. holder holds our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment).

This summary does not address all aspects of U.S. federal income taxation and does not address any estate or gift tax issues, the impact of the Medicare contribution tax on net investment or any tax consequences arising under any tax law other than U.S. federal income tax law or under the laws of any state, local or foreign jurisdiction. Special rules different from those described below may be relevant to non-U.S. holders in light of their particular circumstances, such as non-U.S. holders subject to special tax treatment under U.S. federal tax laws (including pass-through entities, "controlled foreign corporations," "passive foreign investment companies," financial institutions and insurance companies, tax-exempt organizations or governmental organizations, dealers in securities, holders of securities held as part of a "straddle," "hedge," "conversion transaction" or other risk-reduction transaction, persons subject to the alternative minimum tax, corporations that accumulate earnings to avoid U.S. federal income tax, persons deemed to sell our common stock under the constructive sale provisions of the Code, tax-qualified retirement plans and U.S. expatriates and former citizens or residents of the United States). Such non-U.S. holders should consult their own tax advisors to determine the U.S. federal and other tax consequences that may be relevant to them. If a partnership (including any entity treated as a partnership for U.S. federal income tax purposes) is a holder of our common stock, the tax treatment

Table of Contents

of a partner in the partnership generally will depend on the status of the partner, the partnership's activities and certain determinations made at the partner level. A holder that is a partnership, and partners in such a partnership, should consult their own tax advisors regarding the tax consequences of the acquisition, ownership and disposition of shares of our common stock.

THE FOLLOWING DISCUSSION IS INTENDED AS A GENERAL SUMMARY ONLY AND IS NOT TAX ADVICE. YOU ARE URGED TO CONSULT YOUR OWN TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP OR DISPOSITION OF OUR COMMON STOCK, INCLUDING THE APPLICABLE FEDERAL, STATE, LOCAL AND FOREIGN TAX CONSEQUENCES IN LIGHT OF YOUR OWN PARTICULAR TAX SITUATION AND ANY APPLICABLE TAX TREATY.

Distributions

We do not currently expect to pay dividends on our common stock. If we do make distributions on our common stock, such distributions paid to a non-U.S. holder generally will constitute dividends for U.S. federal income tax purposes to the extent such distributions are paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment to the extent of the non-U.S. holder's adjusted tax basis in our common stock, and any remaining excess will be treated as capital gain from the disposition of our common stock. See " Gain on Disposition of Common Stock" below for additional information.

Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. A non-U.S. holder of common stock who wishes to claim the benefit of an applicable treaty rate for dividends generally will be required to submit a completed IRS Form W-8BEN or W-8BEN-E (or other applicable form) to us or our paying agent and certify, under penalty of perjury, that the holder is not a U.S. person and is eligible for the benefits with respect to dividends allowed by the treaty. If the holder holds the stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to the agent. The holder's agent then will be required to provide certification to us or our paying agent, either directly or through other intermediaries. In the case of a non-U.S. holder that is an entity, Treasury regulations and the relevant tax treaty provide rules to determine whether, for purposes of determining the applicability of a tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a non-U.S. holder is eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty, the non-U.S. holder should contact its tax advisor regarding the possibility of obtaining a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

The withholding tax generally does not apply to dividends paid to a non-U.S. holder who provides a Form W-8ECI to us (or if stock is held through a financial institution or other agent, to such agent), certifying that dividends are effectively connected with the non-U.S. holder's conduct of a trade or business within the United States. Instead, the effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates as if the non-U.S. person were a U.S. resident. A corporate non-U.S. holder also may be subject to an additional "branch profits tax," which is imposed at a rate of 30% (or a lower rate as may be specified by an applicable income tax treaty) on that portion of the holder's earnings and profits that is effectively connected with its U.S. trade or business. Non-U.S. holders should consult their tax advisors regarding whether an applicable income tax treaty provides for a different result with respect to effectively connected dividends.

Table of Contents

Gain on Disposition of Common Stock

Subject to the discussions below regarding backup withholding and FATCA, a non-U.S. holder generally will not be subject to U.S. federal income tax on the gain realized on a sale or other disposition of common stock unless:

the gain is effectively connected with a trade or business of the non-U.S. holder in the United States, and, where a tax treaty applies, is attributable to a U.S. permanent establishment of the non-U.S. holder;

the non-U.S. holder is a non-resident alien individual who is present in the United States for 183 or more days during the taxable year of disposition and meets certain other requirements; or

we are or have been a "U.S. real property holding corporation" within the meaning of Section 897(c)(2) of the Code, also referred to as a USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for the common stock.

Gain recognized on the sale or other disposition of common stock and effectively connected with a U.S. trade or business (and, if required by an applicable income tax treaty, attributable to a U.S. permanent establishment of the non-U.S. holder), is subject to graduated U.S. federal income tax on a net income basis generally in the same manner as if the non-U.S. holder were a U.S. person, as defined under the Code. Under certain circumstances, any such effectively connected gain from the sale or disposition of common stock received by a corporate non-U.S. holder may be subject to an additional "branch profits tax" at a 30% rate or a lower rate as may be specified by an applicable income tax treaty.

An individual non-U.S. holder who is present in the United States for 183 or more days during the taxable year of disposition generally will be subject to a flat 30% tax imposed on the gain derived from the sale or other disposition of our common stock, which may be offset by certain U.S. source capital losses realized in the same taxable year, provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

In general, a corporation is a USRPHC if the fair market value of its "U.S. real property interests" equals or exceeds 50% of the sum of the fair market value of its worldwide (domestic and foreign) real property interests and its other assets used or held for use in a trade or business. For this purpose, real property interests include land, improvements and associated personal property. We believe that we currently are not a USRPHC. In addition, based on the financial statements included in this prospectus and current expectations regarding the value and nature of our assets and other relevant data, we do not anticipate becoming a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our "U.S. real property interests" relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future.

If we become a USRPHC, a non-U.S. holder nevertheless will not be subject to U.S. federal income tax if our common stock is regularly traded on an established securities market, within the meaning of applicable Treasury regulations, and the non-U.S. holder holds no more than 5% of our outstanding common stock, directly, indirectly or constructively, at all times within the shorter of the five-year period preceding the disposition or the holder's holding period. Our common stock is listed on the NASDAQ Global Select Market and we expect that our common stock may be regularly traded on an established securities market in the United States as long as it is so listed.

Table of Contents

Information Reporting and Backup Withholding

We (or the applicable withholding agent) must report annually to the IRS and to each non-U.S. holder the amount of dividends paid to such holder and the tax withheld with respect to those dividends, regardless of whether withholding was required. Copies of the information returns reporting dividends and withholding also may be made available to the tax authorities in the country in which the non-U.S. holder resides under the provisions of an applicable income tax treaty.

The United States imposes a backup withholding tax on dividends and some other types of payments to U.S. persons (currently at a rate of 28%). Dividends paid to a non-U.S. holder generally will not be subject to backup withholding if proper certification of foreign status on a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable form) is provided and the payor does not have actual knowledge or reason to know that the beneficial owner is a U.S. person, or if the holder is a corporation or one of several types of entities and organizations that qualify for an exemption.

Under current U.S. federal income tax law, U.S. information reporting and backup withholding requirements generally will apply to the proceeds of a disposition of our common stock effected by or through a U.S. office of any U.S. or foreign broker, except that information reporting and such requirements may be avoided if the holder provides a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable form) or otherwise meets documentary evidence requirements for establishing non-U.S. holder status, or otherwise establishes an exemption. Generally, U.S. information reporting and backup withholding requirements will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a non-U.S. broker. Information reporting and backup withholding requirements, however, may apply to a payment of disposition proceeds if the broker has actual knowledge, or reason to know, that the holder is, in fact, a U.S. person. For information reporting purposes, certain brokers with substantial U.S. ownership or operations generally will be treated in a manner similar to U.S. brokers.

Backup withholding is not an additional tax. A holder subject to backup withholding should contact the holder's tax advisor regarding the possibility of obtaining a refund or a tax credit and any associated requirements to provide information to the IRS or other relevant tax authority.

Legislation Affecting Taxation of Our Common Stock Held by or Through Foreign Entities

Legislation commonly known as the Foreign Account Tax Compliance Act, or FATCA, imposes a 30% withholding tax on certain types of payments made to "foreign financial institutions" and other specified non-U.S. entities unless due diligence, reporting, withholding and certification requirements are satisfied.

The Treasury Department and the IRS have issued final regulations under FATCA. As a general matter, FATCA imposes a 30% withholding tax on dividends on, and gross proceeds from the sale or other disposition of, our common stock if paid to a foreign entity unless:

the foreign entity is a "foreign financial institution" that undertakes specified due diligence, reporting, withholding and certification obligations or, in the case of a foreign financial institution that is a resident in a jurisdiction that has entered into an intergovernmental agreement to implement FATCA, the entity complies with the diligence and reporting requirements of such an agreement;

the foreign entity is not a "foreign financial institution" and identifies certain of its U.S. investors; or

the foreign entity otherwise is exempted under FATCA.

An intergovernmental agreement between the United States and an applicable non-U.S. government may modify these rules. Withholding is required with respect to dividends on our common

Table of Contents

stock and for dispositions that occur on or after January 1, 2019, with respect to gross proceeds from a sale or other disposition of our common stock.

If withholding is imposed under FATCA on a payment related to our common stock, a beneficial owner that is not a foreign financial institution and that otherwise would not be subject to withholding (or that otherwise would be entitled to a reduced rate of withholding) generally may obtain a refund from the IRS by filing a U.S. federal income tax return (which may entail significant administrative burden). Prospective investors should consult their tax advisors regarding the effect of FATCA in their particular circumstances.

Table of Contents**UNDERWRITING**

Citigroup Global Markets Inc., Leerink Partners LLC, Credit Suisse Securities (USA) LLC and Wells Fargo Securities, LLC are acting as joint book-running managers of the offering and as representatives of the underwriters named below (the "Representatives"). Subject to the terms and conditions stated in the underwriting agreement dated the date of this prospectus supplement, each underwriter named below has severally agreed to purchase, and we have agreed to sell to that underwriter, the number of shares set forth opposite the underwriter's name.

Underwriter	Number of Shares
Citigroup Global Markets Inc.	612,500
Leerink Partners LLC	437,500
Credit Suisse Securities (USA) LLC	192,500
Wells Fargo Securities, LLC	192,500
Robert W. Baird & Co. Incorporated	52,500
FBR Capital Markets & Co.	52,500
Guggenheim Securities, LLC	52,500
Raymond James & Associates, Inc.	52,500
SunTrust Robinson Humphrey, Inc.	52,500
Wedbush Securities Inc.	52,500
Total	1,750,000

The underwriting agreement provides that the obligations of the underwriters to purchase the shares included in this offering are subject to approval of legal matters by counsel and to other conditions. The underwriters are obligated to purchase all the shares (other than those covered by the option described below) if they purchase any of the shares.

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount from the initial public offering price not to exceed \$6.75 per share. If all the shares are not sold at the initial offering price, the underwriters may change the offering price and the other selling terms.

If the underwriters sell more shares than the total number set forth in the table above, we have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to 262,500 additional shares at the public offering price less the underwriting discount. The underwriters may exercise the option in connection with this offering. To the extent the option is exercised, each underwriter must purchase a number of additional shares approximately proportionate to that underwriter's initial purchase commitment. Any shares issued or sold under the option will be issued and sold on the same terms and conditions as the other shares that are the subject of this offering.

We, our officers and directors, and certain of our other stockholders have agreed that, for a period of 60 days from the date of this prospectus supplement, we and they will not, without the prior written consent of the Representatives, dispose of or hedge any shares or any securities convertible into or exchangeable for our common stock, other than grants of equity incentive compensation if they (i) are an inducement material to an individual entering into employment with the Company and (ii) do not require shareholder approval pursuant to Nasdaq Rule 5635(c). The Representatives in their sole discretion may release any of the securities subject to these lock-up agreements at any time without notice.

The shares are listed on the NASDAQ Global Select Market under the symbol "TSRO".

Table of Contents

The following table shows the underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' option.

Paid by TESARO				
	No Exercise		Full Exercise	
Per share	\$	6.75	\$	6.75
Total	\$	11,812,500	\$	13,584,375

We estimate that our portion of the total expenses of this offering will be \$278,989. We have also agreed to reimburse the underwriters for certain of their expenses in an amount up to \$10,000 as set forth in the underwriting agreement.

In connection with the offering, the underwriters may purchase and sell shares in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, which may include purchases pursuant to the option and stabilizing purchases.

Short sales involve secondary market sales by the underwriters of a greater number of shares than they are required to purchase in the offering.

"Covered" short sales are sales of shares in an amount up to the number of shares represented by the underwriters' option.

"Naked" short sales are sales of shares in an amount in excess of the number of shares represented by the underwriters' option.

Covering transactions involve purchases of shares either pursuant to the underwriters' option to purchase additional shares or in the open market after the distribution has been completed in order to cover short positions.

To close a naked short position, the underwriters must purchase shares in the open market after the distribution has been completed. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

To close a covered short position, the underwriters must purchase shares in the open market after the distribution has been completed or must exercise the option. In determining the source of shares to close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option.

Stabilizing transactions involve bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum.

Purchases to cover short positions and stabilizing purchases, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the shares. They may also cause the price of the shares to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may conduct these transactions on the NASDAQ Global Select Market, in the over-the-counter market or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

Other Relationships

The underwriters are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment

Table of Contents

management, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have in the past performed commercial banking, investment banking and advisory services for us from time to time for which they have received customary fees and reimbursement of expenses and may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make because of any of those liabilities.

Additionally, in connection with the pricing of our 3.00% Convertible Senior Notes Due 2021, or the notes, in September 2014, we entered into capped call transactions with Citibank, N.A., which we refer to as the "hedge counterparty." The capped call transactions covered, subject to anti-dilution adjustments substantially similar to those applicable to the notes, the number of shares of our common stock underlying the notes and are expected generally to reduce the potential dilution and/or offset potential cash payments we are required to make in excess of the principal amount upon conversion of the notes. In connection with hedging the capped call transactions, the hedge counterparty (or its affiliates) may modify its existing hedge positions with respect to the capped call transactions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions at any time prior to the maturity of the notes (and are likely to do so during any conversion period related to a conversion of notes). This hedging activity could have an effect of decreasing, or preventing an increase of, the market price of our common stock (or of increasing, or preventing a decrease of, such price) at the time of the pricing of this offering.

Notice to Prospective Investors in the European Economic Area

In relation to each member state of the European Economic Area that has implemented the Prospectus Directive (each, a relevant member state), with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state (the relevant implementation date), an offer of shares described in this prospectus supplement may not be made to the public in that relevant member state other than:

to any legal entity which is a qualified investor as defined in the Prospectus Directive;

to fewer than 100 or, if the relevant member state has implemented the relevant provision of the 2010 PD Amending Directive, 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the relevant Dealer or Dealers nominated by us for any such offer; or

in any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

Table of Contents

For purposes of this provision, the expression an "offer of securities to the public" in any relevant member state means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe for the shares, as the expression may be varied in that member state by any measure implementing the Prospectus Directive in that member state, and the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the relevant member state) and includes any relevant implementing measure in the relevant member state. The expression 2010 PD Amending Directive means Directive 2010/73/EU.

The sellers of the shares have not authorized and do not authorize the making of any offer of shares through any financial intermediary on their behalf, other than offers made by the underwriters with a view to the final placement of the shares as contemplated in this prospectus supplement. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of the shares on behalf of the sellers or the underwriters.

Notice to Prospective Investors in the United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and are only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a "relevant person"). This prospectus supplement and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

Notice to Prospective Investors in France

Neither this prospectus supplement nor any other offering material relating to the shares described in this prospectus supplement has been submitted to the clearance procedures of the *Autorité des Marchés Financiers* or of the competent authority of another member state of the European Economic Area and notified to the *Autorité des Marchés Financiers*. The shares have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France. Neither this prospectus supplement nor any other offering material relating to the shares has been or will be:

released, issued, distributed or caused to be released, issued or distributed to the public in France; or

used in connection with any offer for subscription or sale of the shares to the public in France.

Such offers, sales and distributions will be made in France only:

to qualified investors (*investisseurs qualifiés*) and/or to a restricted circle of investors (*cercle restreint d'investisseurs*), in each case investing for their own account, all as defined in, and in accordance with articles L.411-2, D.411-1, D.411-2, D.734-1, D.744-1, D.754-1 and D.764-1 of the French *Code monétaire et financier*;

to investment services providers authorized to engage in portfolio management on behalf of third parties; or

Table of Contents

in a transaction that, in accordance with article L.411-2-II-1^o-or-2^o-or 3^o of the French *Code monétaire et financier* and article 211-2 of the General Regulations (*Règlement Général*) of the *Autorité des Marchés Financiers*, does not constitute a public offer (*appel public à l'épargne*).

The shares may be resold directly or indirectly, only in compliance with articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French *Code monétaire et financier*.

Notice to Prospective Investors in Hong Kong

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), or (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong) and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Notice to Prospective Investors in Japan

The shares offered in this prospectus supplement have not been and will not be registered under the Securities and Exchange Law of Japan. The shares have not been offered or sold and will not be offered or sold, directly or indirectly, in Japan or to or for the account of any resident of Japan (including any corporation or other entity organized under the laws of Japan), except (i) pursuant to an exemption from the registration requirements of the Securities and Exchange Law and (ii) in compliance with any other applicable requirements of Japanese law.

Notice to Prospective Investors in Singapore

This prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to compliance with conditions set forth in the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

Table of Contents

shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

to an institutional investor (for corporations, under Section 274 of the SFA) or to a relevant person defined in Section 275(2) of the SFA, or to any person pursuant to an offer that is made on terms that such shares, debentures and units of shares and debentures of that corporation or such rights and interest in that trust are acquired at a consideration of not less than \$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets, and further for corporations, in accordance with the conditions specified in Section 275 of the SFA;

where no consideration is or will be given for the transfer; or where the transfer is by operation of law.

Notice to Prospective Investors in Canada

The shares offered in this prospectus supplement may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

PURSUANT TO SECTION 3A.3 OF NATIONAL INSTRUMENT 33-105 UNDERWRITING CONFLICTS (NI 33-105), THE UNDERWRITERS ARE NOT REQUIRED TO COMPLY WITH THE DISCLOSURE REQUIREMENTS OF NI 33-105 REGARDING UNDERWRITER CONFLICTS OF INTEREST IN CONNECTION WITH THIS OFFERING.

LEGAL MATTERS

The legal validity of the securities offered by this prospectus supplement will be passed upon for us by Hogan Lovells US LLP, Baltimore, Maryland. Certain legal matters in connection with this offering will be passed upon for the underwriters by Latham & Watkins LLP, Menlo Park, California.

EXPERTS

Ernst & Young 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, 2015, and the effectiveness of our internal control over financial reporting as of December 31, 2015, as set forth in their reports dated February 26, 2016, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

PROSPECTUS

**Common Stock
Debt Securities
Preferred Stock
Warrants
Units**

We may, from time to time, offer, issue and sell common stock, senior or subordinated debt securities, preferred stock, warrants to purchase our debt securities, preferred stock or common stock, and/or units that include any of these securities. The debt securities, preferred stock and warrants we may offer may be convertible into or exercisable or exchangeable for debt, common or preferred stock or other securities of the Company or debt or equity securities of one or more other entities. We refer to our senior or subordinated debt securities, preferred stock, common stock, warrants and units collectively as the "securities." We may offer the securities separately or together, in separate series or classes and in amounts, at prices and on terms described in one or more supplements to this prospectus. In addition, this prospectus may be used to offer securities for the account of persons other than us.

This prospectus describes some of the general terms that may apply to the securities we or any selling securityholders may offer and sell and the general manner in which they may be offered. Each time we or any selling securityholders offer securities pursuant to this prospectus, we or any selling securityholders will provide one or more supplements to this prospectus or free writing prospectuses that contain specific information about the offering and the terms of any securities being sold. Before investing, you should carefully read this prospectus and any related prospectus supplement or free writing prospectus. Prospectus supplements or free writing prospectuses may add, update or change information contained in this prospectus.

We or any selling securityholder may offer and sell these securities to or through agents, underwriters or dealers, or directly to purchasers, on a continuous or delayed basis. The names of any agents, underwriters or dealers and the terms of the arrangements with any such entities will be stated in the applicable prospectus supplement.

Our common stock is traded on The NASDAQ Global Select Market under the symbol "TSRO."

This prospectus may not be used to sell securities unless accompanied by a prospectus supplement.

You should read carefully this prospectus, the documents incorporated by reference in this prospectus and any prospectus supplement before you invest. Investing in our common stock involves risks. Please see "Risk Factors" on page 1 for more information.

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 June 30, 2016

TABLE OF CONTENTS

	Page
<u>Risk Factors</u>	<u>1</u>
<u>Where You Can Find More Information</u>	<u>39</u>
<u>Incorporation of Certain Information by Reference</u>	<u>39</u>
<u>Cautionary Note Regarding Forward-Looking Statements</u>	<u>40</u>
<u>Industry and Market Data</u>	<u>41</u>
<u>About the Company</u>	<u>42</u>
<u>Use of Proceeds</u>	<u>42</u>
<u>Ratio of Earnings to Fixed Charges</u>	<u>43</u>
<u>Description of Our Common Stock</u>	<u>43</u>
<u>Description of Debt Securities</u>	<u>50</u>
<u>Description of Preferred Stock</u>	<u>62</u>
<u>Description of Warrants</u>	<u>64</u>
<u>Description of Units</u>	<u>64</u>
<u>Selling Securityholders</u>	<u>65</u>
<u>Legal Matters</u>	<u>65</u>
<u>Experts</u>	<u>65</u>

ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission (the "SEC") utilizing a "shelf" registration process. Under this shelf registration process, we or any selling securityholder may sell any combination of the securities described in this prospectus in one or more offerings from time to time. This prospectus provides you with a general description of the securities we or any selling securityholder may offer. Each time we or any selling securityholder sell securities pursuant to this prospectus, we or such selling securityholder will provide a prospectus supplement or free writing prospectus that will contain specific information about the terms of that offering. The prospectus supplement or free writing prospectus may also add, update or change information contained in this prospectus. Therefore, if there is any inconsistency between the information in this prospectus and the prospectus supplement, you should rely on the information in the prospectus supplement. You should read both this prospectus and any prospectus supplement together with the additional information described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference", and any free writing prospectus that we may prepare and distribute.

Neither we nor any selling securityholder have authorized any person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any accompanying supplement to this prospectus or any free writing prospectus that may be incorporated by reference into this prospectus or any prospectus supplement, or any document incorporated by reference into this prospectus or any prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any accompanying prospectus supplement or any free writing prospectus.

Neither this prospectus nor any accompanying prospectus supplement nor any free writing prospectus constitutes an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which it relates, nor does this prospectus or any accompanying prospectus supplement or any free writing prospectus 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 or any accompanying prospectus supplement or any free writing prospectus or any other offering materials is

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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 or any accompanying prospectus supplement or any free writing prospectus is delivered or securities are sold on a later date.

Unless the context otherwise requires or as otherwise expressly stated, references in this prospectus to the "Company," "TESARO," "we," "us" and "our" and similar terms refer to TESARO, Inc. and our subsidiaries on a consolidated basis, as appropriate in the context.

Table of Contents

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider and evaluate the following discussion of risk factors, in its entirety, and the risks and uncertainties described in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2015 and subsequently filed SEC reports, which are incorporated by reference herein, and the other information set forth or incorporated by reference in this prospectus and the accompanying prospectus supplement before you decide to purchase our securities. Any of the risks and uncertainties set forth therein could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the trading price or value of our securities. As a result, you could lose all or part of your investment.

Risks Related to Our Financial Position and Capital Needs

We have incurred significant losses since our inception and anticipate that we will continue to incur losses in the future.

We are a biopharmaceutical company with a limited operating history. Investment in biopharmaceutical product development and commercialization is highly speculative because it entails substantial upfront capital expenditures and significant risk that a product candidate will fail to gain regulatory approval or become commercially viable. We have not recognized any revenue from product sales to date, and we continue to incur significant development and other expenses related to our ongoing operations. As a result, we are not profitable and have incurred losses in each period since our inception in 2010. For the year ended December 31, 2015 and the quarter ended March 31, 2016, we reported a net loss of \$251.4 million and \$90.8 million, respectively, and we had an accumulated deficit of \$692.7 million as of March 31, 2016.

Although we obtained approval from the U.S. Food and Drug Administration, or FDA, for VARUBI® (rolapitant) tablets in September 2015 and launched VARUBI in the U.S. market during the fourth quarter of 2015, we expect to continue to incur losses for the foreseeable future, and these losses may increase as we continue to invest in a sales and marketing organization and other commercialization infrastructure for VARUBI and continue our development of, and seek regulatory approvals for, our product candidates. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses, our ability to generate revenues from VARUBI and any product candidates for which we obtain regulatory approval, including niraparib and the IV formulation of rolapitant, and the timing and amount of milestones and other required payments to third parties in connection with such approvals. If any of our product candidates, such as niraparib, fails in clinical trials or does not gain regulatory approval, or if approved, fails to achieve market acceptance, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our prior losses and expected future losses have had, and will continue to have, an adverse effect on our stockholders' equity and working capital.

We have a limited operating history, which may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

We were incorporated in March 2010. Our operations to date have been focused on organizing and staffing our company, acquiring product and technology rights, and conducting product development activities for our product candidates. We obtained FDA approval for VARUBI in September 2015 but have very limited experience commercializing VARUBI or any of our other product candidates. Consequently, any predictions about our future success, performance or viability may not be as accurate as they could be if we had a longer operating history, approved products that have been marketed for some time, or both.

Table of Contents

We have recognized limited revenues from sales of our products, and we may never become profitable.

To date, we have recognized limited revenues from sales of VARUBI and have not generated any revenues from sales of our clinical-stage product candidates. We also have not generated any revenues from the other product candidates that we have in-licensed. Our ability to generate revenue and become profitable depends upon our ability to successfully commercialize products, including VARUBI, our existing clinical-stage product candidates, including niraparib and IV rolapitant, and any other product candidates that we have or may in-license or acquire in the future. Even if we are able to successfully achieve regulatory approval for our product candidates, we do not know when any of these products will generate revenue for us, if at all. Our ability to generate revenue from VARUBI and our current or future product candidates also depends on a number of additional factors, including our ability to:

successfully complete development activities, including clinical trials for niraparib;

complete and submit new drug applications, or NDAs, or biologic license applications, or BLAs, to the FDA and obtain regulatory approval for indications for which there is a commercial market;

complete and submit applications to, and obtain regulatory approval from, foreign regulatory authorities;

set a commercially viable price for our products;

obtain commercial quantities of VARUBI, IV rolapitant, niraparib, and any of our other product candidates at acceptable cost levels;

develop a commercial organization capable of sales, marketing and distribution;

find suitable partners to help us market, sell and distribute our approved products; and

obtain adequate reimbursement from third-party payors, including government payors.

In addition, because of the numerous risks and uncertainties associated with product development, including the risk that our product candidates may not advance through development or achieve the endpoints of applicable clinical trials, we are unable to predict the timing or amount of increased expenses, or when or if we will be able to achieve or maintain profitability. Even if we are able to complete the process described above, we anticipate incurring significant costs associated with commercializing these products.

Even if we are able to generate revenues from the sale of our products, we may not become profitable and may need to obtain additional funding to continue operations. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce our operations.

We will require additional capital to fund our operations, and if we fail to obtain necessary financing, we may be unable to complete the development and commercialization of our product candidates.

Our operations have consumed substantial amounts of cash since inception. We expect to continue to spend substantial amounts to advance the clinical development of our product candidates and to launch and commercialize VARUBI and any product candidates for which we receive regulatory approval in both the U.S. and in certain foreign markets, including Europe. We also expect to spend substantial amounts for any milestone obligations that may arise, and for any additional product candidates that we may in-license. We will require additional capital for these and other needs. If such additional funding is not obtained on a timely basis, we would be required to change our current operating plans to reduce our future expenses.

Table of Contents

Until we can generate a sufficient amount of revenue from our products, if ever, we expect to finance future cash needs through additional public or private equity or debt offerings and may seek additional capital through arrangements with strategic partners or from other sources. Additional capital may not be available on reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of VARUBI, niraparib, or one or more of our other product candidates. Raising additional funds through the issuance of debt or equity securities could result in dilution to our existing stockholders, increased fixed payment obligations, or both. Furthermore, these securities may have rights senior to those of our common stock and could contain covenants that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Any of these events could significantly harm our business, financial condition and prospects.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is based on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Our future funding requirements, both short and long-term, will depend on many factors, including:

the cost of establishing sales, marketing and distribution capabilities for VARUBI and any of our product candidates for which we may receive regulatory approval in the U.S. and in certain foreign markets, including Europe;

the outcome, timing and cost of regulatory approvals by the FDA and comparable foreign regulatory authorities, including for niraparib and IV rolapitant, and the potential that the FDA or comparable foreign regulatory authorities may require that we perform more studies than those that we currently expect;

the initiation, progress, timing, costs and results of clinical trials for our current product candidates and any future product candidates we may in-license;

the cost and timing of completion of commercial-scale outsourced manufacturing activities, including for niraparib and IV rolapitant;

the preclinical and clinical development plans we and our collaborator, AnaptysBio, Inc., or AnaptysBio, establish for our immuno-oncology platform;

the likelihood and timing of attainment of milestones and our obligations to make milestone payments, royalty payments, or both under our in-licensing agreements;

the number and characteristics of product candidates that we in-license and develop;

the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

the amount and timing of potential conversion requests, if any, and interest expense associated with our 3.00% convertible senior notes due October 1, 2021, or the Convertible Notes; and

the effect of competing technological and market developments.

If we lack the capital to expand our operations or otherwise capitalize on our business opportunities, our business, financial condition and results of operations could be materially adversely affected.

Table of Contents

The results of the United Kingdom's referendum on withdrawal from the European Union may have a negative effect on global economic conditions, financial markets and our business.

In June 2016, a majority of voters in the United Kingdom elected to withdraw from the European Union in a national referendum. The referendum was advisory, and the terms of any withdrawal are subject to a negotiation period that could last at least two years after the government of the United Kingdom formally initiates a withdrawal process. Nevertheless, the referendum has created significant uncertainty about the future relationship between the United Kingdom and the European Union, including with respect to the laws and regulations that will apply as the United Kingdom determines which European Union laws to replace or replicate in the event of a withdrawal. The referendum has also given rise to calls for the governments of other European Union member states to consider withdrawal. These developments, or the perception that any of them could occur, have had and may continue to have a material adverse effect on global economic conditions and the stability of global financial markets, and may significantly reduce global market liquidity and restrict the ability of key market participants to operate in certain financial markets. Any of these factors could depress economic activity and restrict our access to capital, which could have a material adverse effect on our business, financial condition and results of operations and reduce the price of our securities.

Risks Related to Our Business and Industry

Our future success is dependent primarily on our ability to successfully commercialize VARUBI and to obtain regulatory approvals for and successfully commercialize our portfolio of product candidates, including niraparib and IV rolapitant.

The success of our business depends heavily upon our ability to develop and commercialize product candidates. We have launched but not recognized any revenue on sales of VARUBI, and our only other late clinical-stage product candidates are IV rolapitant and niraparib. Our other product candidates are at earlier stages of development.

We cannot commercialize product candidates in the United States without first obtaining regulatory approval for the product from the FDA. Similarly, we cannot commercialize product candidates outside of the United States without obtaining regulatory approval from comparable foreign regulatory authorities. Before obtaining regulatory approvals for the commercial sale of any product candidate for a target indication, we must demonstrate with substantial evidence gathered in preclinical and well-controlled clinical studies, and, with respect to approval in the United States, to the satisfaction of the FDA, that the product candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate. The process to develop, obtain regulatory approval for and commercialize product candidates is long, complex and costly both inside and outside of the United States. Even if a product candidate were to successfully obtain approval from the FDA and comparable foreign regulatory authorities, any approval might contain significant limitations, including use restrictions for certain patient populations; warnings, precautions or contraindications; or burdensome post-approval study or risk management requirements.

Notwithstanding VARUBI's FDA approval, the FDA will require approval of a separate NDA for an IV formulation of rolapitant, and there can be no assurance that we will be able to obtain regulatory approval of the IV formulation. To support an NDA for the IV formulation, we will have to provide data specific to the IV formulation. We expect the IV formulation of rolapitant to serve what we believe is a larger portion of the market for NK-1 receptor antagonists and potentially generate more revenue than the oral formulation. If we do not obtain regulatory approval for the IV formulation or do not obtain such approval in a timely manner, it would negatively affect our revenue and growth prospects.

Despite the results reported in earlier clinical trials for niraparib, we do not know whether the clinical trials we are conducting or may in the future conduct will demonstrate adequate efficacy and

Table of Contents

safety to result in regulatory approval for niraparib in any particular jurisdiction or jurisdictions. If we do not obtain regulatory approval for niraparib, or do not obtain such approval in a timely manner or for anticipated patient populations, it would negatively affect our revenue and growth prospects.

Our current business plan relies on the successful commercialization of VARUBI, which was approved by the FDA in September 2015, and VARUBI may not achieve market acceptance and may not be commercially successful.

Our ability to successfully commercialize VARUBI, our first FDA-approved product, is important to the execution of our business strategy. VARUBI may not achieve market acceptance among physicians, patients, and third-party payors, and may not be commercially successful. The degree of market acceptance and commercial success of VARUBI will depend on a number of factors, including the following:

maintaining compliance with all regulatory requirements applicable to VARUBI;

the acceptance of VARUBI by patients and the medical community and the availability, perceived advantages and relative cost, safety and efficacy of alternative and competing treatments;

the effectiveness of our marketing, sales and distribution strategy and operations;

the ability of our third-party manufacturers to manufacture commercial supplies of VARUBI, to remain in good standing with regulatory agencies, and to develop, validate and maintain commercially viable manufacturing processes that are, to the extent required, compliant with current good manufacturing practice, or cGMP, regulations;

the degree to which the approved labeling supports promotional initiatives for commercial success;

the availability of reimbursement from managed care plans and other third-party payors and the willingness and ability of patients to pay for VARUBI;

a continued acceptable safety profile of VARUBI;

any unexpected results from further analysis of clinical data of our completed clinical trials;

our ability to enforce our intellectual property rights in and to VARUBI; and

our ability to avoid third party patent interference or patent infringement claims.

As many of these factors are beyond our control, we cannot assure you that we will ever be able to generate meaningful revenue through the sale of VARUBI. Any inability on our part to successfully commercialize VARUBI in the United States and any foreign territories where it may be approved, or any significant delay in such approvals, could have a material adverse impact on our ability to execute upon our business strategy.

If we are unable to successfully establish sales, marketing and distribution capabilities for VARUBI or our product candidates for which we obtain marketing approval, we may be unable to generate revenue from sales of our products.

Prior to the launch of VARUBI in late 2015, we had not commercialized any drug products as a company. To achieve commercial success for VARUBI and any product candidate that may be approved by the FDA or comparable foreign regulatory authorities, we must continue to expand our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. We will be competing with companies that currently have extensive,

Table of Contents

well-funded, and more experienced sales and marketing operations. We may be unable to compete successfully against these more established companies.

We have recently built a field organization and other capabilities for the sales, marketing and distribution of VARUBI, and there are significant risks involved with building and managing a sales organization. Factors that may inhibit our efforts to effectively commercialize VARUBI on our own include:

our inability to recruit, train, retain and incentivize adequate numbers of qualified and effective sales and marketing personnel;

the inability of sales personnel to generate sufficient sales leads and to obtain access to physicians or persuade adequate numbers of physicians to use or prescribe VARUBI;

the lack of complementary products currently offered by our sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and

our inability to effectively manage a geographically dispersed sales and marketing team.

If we are unable to establish and maintain effective sales, marketing and distribution capabilities for VARUBI and any other product candidate for which we obtain marketing approval, whether independently or with third parties, we may not be able to generate product revenue or may not become profitable. If the cost of establishing and maintaining a sales and marketing organization exceeds the cost-effectiveness of doing so, we may not become profitable.

We face substantial competition for VARUBI and our product candidates, and others may discover, develop or commercialize products before or more successfully than we do.

The development and commercialization of new drug products is highly competitive. We face substantial competition with respect to VARUBI and, if approved, our IV rolapitant product would also face substantial competition. VARUBI competes with EMEND, an NK-1 receptor antagonist marketed by Merck, as well as AKYNZEO, an oral combination NK-1 receptor antagonist and 5-HT₃ receptor antagonist (netupitant plus ALOXI (palonosetron HCl)) that is marketed by Helsinn and Eisai. We are aware that Sandoz has received approval for a generic version of aprepitant that to our knowledge has not been launched commercially. VARUBI would face additional competition if such a generic version is introduced to the market or if other products were developed and approved for the treatment and prevention of CINV or if an IV formulation of AKYNZEO is developed. There are a number of large pharmaceutical and biotechnology companies that market and sell products or are pursuing the development of products that we expect will compete with niraparib.

A number of pharmaceutical and biotechnology companies are also pursuing the development of cancer immunotherapies that may compete with our immunotherapy product candidates. We are aware of several companies that have antibody-based products on the market or in clinical development that are directed at the same biological targets as some of our collaboration programs with AnaptysBio, and several other companies with immuno-oncology antibodies or programs in the preclinical or research phase. For further detail on the specific competition that VARUBI and our product candidates face, see "Item 1. Business Competition" of our Annual Report on Form 10-K for the year ended December 31, 2015.

Many of the approved drugs with which our products or product candidates may compete are well established therapies or products and are widely accepted by physicians, patients and third-party payors. Insurers and other third-party payors may also encourage the use of generic products. If a generic formulation of aprepitant were to be introduced to the market, it may have a price that is lower than the price of VARUBI. If our other product candidates are approved, they may be priced at a significant premium over competitive generic products. This may make it difficult for us to execute our

Table of Contents

business strategy of using our product candidates in combination with existing therapies or replacing existing therapies with our product candidates.

As a result of these factors, our competitors may obtain regulatory approval of their products more rapidly than we are able to or may obtain patent protection or other intellectual property rights that limit our ability to develop or commercialize our product candidates. Our competitors may also develop drugs that are more effective, more widely used and less costly than ours, and may also be more successful than us in manufacturing and marketing their products.

Even if our product candidates receive regulatory approval, as VARUBI has, they may still face future development and regulatory difficulties.

Even after regulatory approval is obtained, products are still subject to ongoing requirements of the FDA and comparable foreign regulatory authorities, including requirements related to manufacturing, quality control, further development, labeling, packaging, storage, distribution, safety surveillance, import, export, advertising, promotion, recordkeeping and reporting of safety and other post-market information. The safety profile of any product will continue to be closely monitored by the FDA and comparable foreign regulatory authorities after approval. If the FDA or comparable foreign regulatory authorities become aware of new safety information about VARUBI or of any of our product candidates after approval, those authorities may require labeling changes or establishment of a Risk Evaluation and Mitigation Strategy, or REMS, or similar strategy, impose restrictions on a product's indicated uses or marketing, or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance.

In addition, manufacturers of drug and biological products and their facilities are subject to continual review and periodic inspections by the FDA, other regulatory authorities or comparable foreign regulatory authorities for compliance with cGMP requirements. If we or a regulatory agency discover previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product, the manufacturing facility or us, including requiring recall or withdrawal of the product from the market or suspension of manufacturing. If we, our approved products or product candidates, or the manufacturing facilities for our approved products or product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

issue warning letters or untitled letters;

mandate modifications to promotional materials or require us to provide corrective information to healthcare practitioners;

require us to enter into a consent decree, which can include imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance;

seek an injunction or impose civil or criminal penalties or monetary fines;

suspend, vary or withdraw regulatory approval;

suspend any ongoing clinical studies;

refuse to approve pending applications or supplements to applications filed by us;

suspend or impose restrictions on operations, including costly new manufacturing requirements; and

seize or detain products, refuse to permit the import or export of products, or require us to initiate a product recall.

Table of Contents

The occurrence of any event or penalty described above may inhibit our ability to commercialize our products and generate revenue.

Advertising and promotion of VARUBI and any product candidate that obtains approval in the United States will be heavily scrutinized by the FDA, the Department of Justice, the Department of Health and Human Services' Office of Inspector General, state attorneys general, members of Congress, and the public. Violations of applicable advertising and promotion laws and regulations, including promotion of our products for unapproved (or off-label) uses, are subject to enforcement letters, inquiries and investigations, and civil and criminal sanctions by the FDA. Advertising and promotion of any product candidate that obtains approval outside of the United States will be heavily scrutinized by comparable foreign regulatory authorities.

In the United States, engaging in impermissible promotion of approved products, such as VARUBI, for off-label uses can also subject us to false claims litigation under federal and state statutes, which can lead to civil and criminal penalties and fines and agreements that materially restrict the manner in which a company promotes or distributes drug products. These false claims statutes include the federal civil False Claims Act, which allows any individual to bring a lawsuit against a pharmaceutical company on behalf of the federal government alleging submission of false or fraudulent claims, or causing to present such false or fraudulent claims, for payment of government funds, and the individual could share in any judgment or settlement funds. Since 2004, False Claims Act lawsuits against pharmaceutical companies have led to several substantial civil and criminal settlements based on certain sales practices promoting off-label drug uses. This growth in litigation has increased the risk that a pharmaceutical company will have to defend a false claim action, pay treble damages and penalties, or agree to comply with burdensome reporting and compliance obligations pursuant to a Corporate Integrity Agreement with the U.S. Department of Health and Human Services Office of Inspector General to avoid exclusion from the Medicare, Medicaid, and other federal and state healthcare programs. We may become subject to such litigation and, if we are not successful in defending against such actions, those actions may have a material adverse effect on our business, financial condition and results of operations. Equivalent laws and potential consequences exist in foreign jurisdictions.

Because the results of preclinical testing or earlier clinical studies are not necessarily predictive of future results, niraparib, which is in Phase 3 clinical trials, or any other product candidate we advance into clinical trials may not have favorable results in later clinical trials or receive regulatory approval.

Success in preclinical testing and early clinical studies does not ensure that later clinical trials will generate adequate data to demonstrate the efficacy and safety of an investigational drug, or the safety, purity, and potency of an investigational biological product. A number of companies in the pharmaceutical and biotechnology industries, including many with greater resources and experience than us, have suffered significant setbacks in clinical trials, even after seeing promising results in earlier clinical trials. Despite the results reported in earlier clinical trials for niraparib, we do not know whether the clinical trials we are conducting or may in the future conduct will demonstrate adequate efficacy and safety to result in regulatory approval for niraparib in any particular jurisdiction or jurisdictions. If we do not obtain regulatory approval for niraparib, or do not obtain such approval in a timely manner or for anticipated patient populations, it would negatively affect our revenue and growth prospects.

Clinical drug development involves a lengthy and expensive process with an uncertain outcome.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process.

Table of Contents

We have various ongoing clinical trials related to our development programs for IV rolapitant and niraparib. We may experience delays in our ongoing or future clinical trials, and we do not know whether planned clinical trials will begin or enroll subjects on time, need to be redesigned, or be completed on schedule, if at all. Clinical trials may be delayed, suspended or prematurely terminated for a variety of reasons, such as:

delay or failure in reaching agreement with the FDA or comparable foreign regulatory authority on a trial design that we are able to execute;

delay or failure in obtaining authorization to commence a trial or inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a clinical study;

delay or failure in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

delay or failure in obtaining institutional review board, or IRB, approval or the approval of other reviewing entities, including comparable foreign entities, to conduct a clinical trial at each site;

withdrawal of clinical trial sites from our clinical trials as a result of changing standards of care or the ineligibility of a site to participate in our clinical trials;

delay or failure in recruiting and enrolling suitable subjects to participate in a trial;

delay or failure in having subjects complete a trial or return for post-treatment follow-up;

clinical sites and investigators deviating from trial protocol, failing to conduct the trial in accordance with regulatory requirements, or dropping out of a trial;

inability to identify and maintain a sufficient number of trial sites, many of which may already be engaged in other clinical trial programs, including some that may be for the same indication;

failure of our third-party CROs, clinical sites, or clinical trial managers to satisfy their contractual duties or meet expected deadlines;

ambiguous or negative interim results, or results that are inconsistent with earlier results;

feedback from the FDA, an IRB, a data safety monitoring board, or comparable foreign entities; or results from earlier stage or concurrent preclinical and clinical studies, that might require modification to the protocol for a given study;

a decision by the FDA, an IRB, comparable foreign regulatory entities, or the Company; or a recommendation by a data safety monitoring board or comparable foreign regulatory entity, to suspend or terminate a clinical trial at any time for safety issues or for any other reason;

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unacceptable risk-benefit profile or unforeseen safety issues or adverse side effects;

failure to demonstrate a benefit from using a drug or biologic;

manufacturing issues, including problems with manufacturing or obtaining from third parties sufficient quantities of raw materials, active pharmaceutical ingredients or product candidates for use in clinical trials; and

changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of subjects to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, the ability to obtain and maintain patient

Table of Contents

consents, whether enrolled subjects drop out before completion, competing clinical trials, and clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating. Furthermore, we rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and while we have agreements governing their activities, we have limited influence over their actual performance.

If we experience delays in the completion of, or the termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process, and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may harm our business, financial condition and prospects significantly. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

The regulatory approval processes of the FDA and comparable foreign regulatory authorities are lengthy, time consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, including niraparib and IV rolapitant, our business will be substantially harmed.

The time required to obtain approval by the FDA and comparable foreign regulatory authorities for a product candidate is unpredictable, but typically takes many years following the commencement of preclinical studies and clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. Although we have obtained FDA regulatory approval for VARUBI, it is possible that none of our current product candidates, including niraparib and IV rolapitant, or any product candidates we may in-license or acquire and seek to develop in the future will ever obtain regulatory approval.

Our product candidates could fail to receive regulatory approval from the FDA or a comparable foreign regulatory authority for many reasons, including:

- disagreement with the design or implementation of our clinical trials;
- failure to demonstrate that a product candidate is safe and effective, or safe, pure, and potent, for its proposed indication;
- failure of clinical trial results to meet the level of statistical significance required for approval;
- failure to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- disagreement with our interpretation of data from preclinical studies or clinical trials;
- the insufficiency of data collected from clinical trials of our product candidates to support the submission and filing of an NDA, BLA or other submission or to obtain regulatory approval;
- disapproval of the manufacturing processes or facilities of third-party manufacturers with whom we contract for clinical and commercial supplies; and
- changes in approval policies or regulations that render our preclinical and clinical data insufficient for approval.

The FDA or a comparable foreign regulatory authority may require more information, including additional preclinical or clinical data, to support approval, which may delay or prevent approval and our commercialization plans, or we may decide to abandon the development program. If we were to

Table of Contents

obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that is not desirable for the successful commercialization of that product candidate. In addition, if our product candidate produces undesirable side effects or safety issues, the FDA may require the establishment of a REMS, or a comparable foreign regulatory authority may require the establishment of similar strategies, that may, for instance, restrict distribution of our product or otherwise impose burdensome implementation requirements on us. Any of the foregoing scenarios could materially harm the commercial prospects of our product candidates.

VARUBI or any of our product candidates, including niraparib or IV rolapitant, may cause undesirable side effects or have other properties that could delay or prevent its regulatory approval, limit its commercial viability, or result in significant negative consequences following any marketing approval.

Undesirable side effects caused by VARUBI or our product candidates, including niraparib and IV rolapitant, could cause us or regulatory authorities to interrupt, delay or halt clinical trials, could result in a more restrictive label, or could result in the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authority. Drug-related side effects could affect patient recruitment or the ability of enrolled subjects to complete a clinical trial, and could result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly.

Additionally, if one or more of our product candidates receives marketing approval, as VARUBI has, and we or others later identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including:

we may suspend marketing of such product;

regulatory authorities may withdraw approvals of such product;

regulatory authorities may require additional warnings on the label for such product;

we may be required to develop a REMS for such product or, if a REMS is already in place, to incorporate additional requirements under the REMS, or to develop a similar strategy as required by a comparable foreign regulatory authority;

we may be required to conduct additional post-market studies;

we could be sued and held liable for harm caused to subjects or patients; or

our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product or product candidate, and could significantly harm our business, results of operations and prospects.

Failure to obtain regulatory approval in international jurisdictions would prevent our product candidates from being marketed abroad.

In order to market and sell any of our product candidates in the European Union and other jurisdictions, including China, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be

Table of Contents

approved for sale in that country. In the EU, certain products or product candidates with which niraparib may compete have received "orphan drug designation" from the EMA in an ovarian cancer indication, which provides certain benefits to such competitors, including market exclusivity for up to ten years in the approved indication post-approval. We will have to overcome those designations by demonstrating that niraparib is not a similar medicinal product, does not have the same therapeutic indication, or is clinically superior to the products that have received the orphan drug designation in order to obtain approval to market niraparib in the EU. We or our licensees may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our products in any market. If we are unable to obtain approval of any of our product candidates by regulatory authorities in the European Union, China or other countries, the commercial prospects of that product candidate may be significantly diminished and our business prospects could decline.

VARUBI, as well as any product candidates we are able to commercialize, may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, which could harm our business.

Our ability to successfully market VARUBI and commercialize other products, including niraparib and IV rolapitant, will depend in part on the extent to which coverage and reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Our future revenues and profitability will be adversely affected if these third-party payors do not sufficiently cover and reimburse the cost of our products and related procedures or services. If these entities do not provide sufficient coverage and reimbursement for VARUBI, or any future drug product we may market, including niraparib and IV rolapitant, these products may be too costly for general use, and physicians may prescribe them less frequently.

The Medicare program and certain government pricing programs, including the Medicaid drug rebate program, the Public Health Service's 340B drug pricing program, or the 340B program, and the pricing program under the Veterans Health Care Act of 1992, or the VHCA, impact the revenues we may derive from VARUBI and other future products that we may commercialize, including niraparib and IV rolapitant. Any future legislation or regulatory actions altering these programs or imposing new compliance requirements could have a significant adverse effect on our business. There have been, and we expect there will continue to be, a number of legislative and regulatory actions and proposals to control and reduce health care costs. These measures may, among other things: negatively impact the level of reimbursement for pharmaceutical products; require higher levels of cost-sharing by beneficiaries; change the discounts required to be provided by pharmaceutical manufacturers to government payors and/or providers; extend government discounts to additional government programs and/or providers; or reduce the level of reimbursement for health care services and other non-drug items. Any such measures could indirectly impact demand for pharmaceutical products because they can cause payors and providers to apply heightened scrutiny and/or austerity actions to their entire operations, including pharmacy budgets.

Also, the trend toward managed health care in the U.S., as well as the implementation of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, together the Affordable Care Act, and the concurrent growth of organizations such as managed care organizations, accountable care organizations and integrated delivery networks, may result in increased pricing pressures for pharmaceutical products, including any products that may be offered by us in the future. Cost-cutting measures that health care providers are instituting, and the implementation of health care reform, could materially adversely affect our ability

Table of Contents

to sell any drug products that are successfully developed or acquired by us. In addition, third-party payors, in an effort to control costs, are increasingly making patients responsible for a higher percentage of the total cost of drugs in the outpatient setting. This can lower the demand for our products if the increased patient cost sharing obligations are more than they can afford. Individual states' responses to ongoing financial pressures could also result in measures designed to limit reimbursement, restrict access, or impose broader or deeper discounts on branded pharmaceutical products utilized for Medicaid patients, including VARUBI, or any future drug product we may market, including niraparib and IV rolapitant. We are unable to predict what additional legislation or regulation, if any, relating to the health care industry or third-party coverage and reimbursement may be enacted in the future or what effect such legislation or regulation would have on our business.

There may be significant delays in obtaining coverage and reimbursement for VARUBI and other newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or comparable foreign regulatory authorities. Moreover, eligibility for coverage and reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacturing, selling and distribution costs. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may only be temporary.

If we fail to comply with our reporting and payment obligations under U.S. governmental pricing and contracting programs, we could be subject to additional reimbursement requirements, penalties, sanctions and fines, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Pricing and rebate calculations vary among products and programs. The calculations are complex and are often subject to interpretation by manufacturers, governmental or regulatory agencies, and the courts. We will be required to submit a number of different pricing calculations, and failure to comply with our reporting and payment obligations under U.S. governmental pricing and contracting programs may have material adverse effects on the company.

The Medicaid rebate amount for each manufacturer is computed each quarter based on the manufacturer's submission to the Centers for Medicare and Medicaid Services, or CMS, of its current average manufacturer price, or AMP, and, in the case of innovator products like VARUBI, best price figures, for the quarter. If we become aware that our AMP or best price reporting for a prior quarter was incorrect, or has changed, we are obligated to resubmit the corrected data for a period not to exceed twelve quarters from the quarter in which the data originally were due. Such restatements and recalculations would increase our costs for complying with the laws and regulations governing the Medicaid drug rebate program. Any corrections to our rebate calculations could result in an overage or underage in our rebate liability for past quarters, depending on the nature of the correction. Price recalculations also may affect the ceiling price at which we would be required to offer our products to certain covered entities, such as safety-net providers, under the 340B program.

We are liable for errors associated with our submission of average sales price, or ASP, pricing data under Medicare Part B. In addition to retroactive rebates and the potential for 340B program refunds, if we are found to have knowingly submitted false AMP, ASP, or best price information to the government, we may be liable for civil monetary penalties in the amount of \$100,000 per item of false information. If we are found to have made a misrepresentation in the reporting of our ASP, the Medicare statute provides for civil monetary penalties of up to \$10,000 for each misrepresentation for each day in which the misrepresentation was applied. Our failure to submit monthly/quarterly AMP, ASP, and best price data on a timely basis could result in a civil monetary penalty of \$10,000 per day for each day the information is late beyond the due date. Such failure also could be grounds for CMS to terminate our Medicaid drug rebate agreement, pursuant to which we participate in the Medicaid program. In the event that CMS terminates our rebate agreement, federal payments may not be available under Medicaid or Medicare Part B for our covered outpatient drugs. Governmental agencies may also make changes in program interpretations, requirements or conditions of participation, some of which may have implications for amounts previously estimated or paid.

Table of Contents

We are required to calculate and report certain pricing data to the U.S. federal government in connection with federal drug pricing programs. Compliance with these federal drug pricing programs is a pre-condition to: (i) the availability of federal funds to pay for our products under Medicaid and Medicare Part B; and (ii) procurement of our products by the Department of Veterans Affairs, or the VA, and by covered entities under the 340B program. The pricing data reported are used as the basis for establishing Federal Supply Schedules, or FSS, drug pricing program and 340B program contract pricing and payment and rebate rates under the Medicare Part B and Medicaid programs, respectively. Pharmaceutical manufacturers have been prosecuted under federal and state false claims laws for submitting inaccurate and/or incomplete pricing information to the government, which has resulted in overcharges or underpayments under these programs. The rules governing the calculation of certain reported prices are highly complex. Although it is our intention to maintain and follow strict procedures to ensure the maximum possible integrity for our federal price calculations, the process for making the required calculations involves subjective judgments and the risk of errors always exists, which creates the potential for exposure under the false claims laws. We cannot assure you that our pricing submissions will not be found to be incomplete or incorrect. If we become subject to investigations or other inquiries concerning our compliance with price reporting laws and regulations, and our methodologies for calculating federal prices are found to include flaws or to have been incorrectly applied, we could be required to pay or be subject to additional reimbursements, penalties, sanctions or fines, which could have a material adverse effect on our business, financial condition and results of operations.

To be eligible to have our products paid for with federal funds under the Medicaid and Medicare Part B programs as well as to be purchased by certain federal agencies and certain federal grantees, we also must participate in the VA FSS pricing program. To participate, we are required to enter into an FSS contract with the VA, under which we must make our innovator "covered drugs" available to the "Big Four" federal agencies the VA, the Department of Defense, the Public Health Service, and the Coast Guard at pricing that is capped pursuant to a statutory federal ceiling price, or FCP, formula set forth in Section 603 of the VHCA. The FCP is based on a weighted average wholesaler price known as the Non-FAMP, which manufacturers are required to report on a quarterly and annual basis to the VA. If we misstate Non-FAMPs or FCPs, we must restate these figures. Additionally, pursuant to the VHCA, knowing provision of false information in connection with a Non-FAMP filing can subject us to penalties of \$100,000 for each item of false information. If we overcharge the government in connection with our FSS contract or the Tricare Retail Pharmacy Program, whether due to a misstated FCP or otherwise, we are required to refund the difference to the government. Failure to make necessary disclosures and/or to identify contract overcharges can result in allegations against us under the False Claims Act and other laws and regulations. Unexpected refunds to the government, and responding to a government investigation or enforcement action, would be expensive and time-consuming, and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Our relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse, transparency and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, exclusion, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, specialty distributors, specialty pharmacies, physicians and third-party payors play a primary role in the distribution, recommendation and prescription of any pharmaceutical product for which we obtain marketing approval. Our arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements through which we market, sell and distribute VARUBI

Table of Contents

and any other products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

the federal healthcare Anti-Kickback Statute prohibits any person from, among other things, knowingly and willfully offering, paying, soliciting, or receiving remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchasing, leasing, ordering or arranging for or recommending of any good or service for which payment may be made, in whole or in part, under federal and state healthcare programs such as Medicare and Medicaid. The term "remuneration" has been broadly interpreted to include anything of value. The Anti-Kickback Statute is subject to evolving interpretation and has been applied by government enforcement officials to a number of common business arrangements in the pharmaceutical industry. The government can establish a violation of the Anti-Kickback Statute without proving that a person or entity had actual knowledge of the statute or specific intent to violate it. There are a number of statutory exemptions and regulatory safe harbors protecting some common activities from prosecution; however, those exceptions and safe harbors are drawn narrowly. Failure to meet all of the requirements of a particular statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute, but the legality of the arrangement will be evaluated on a case-by-case basis based on the totality of the facts and circumstances. We seek to comply with the exemptions and safe harbors whenever possible, but our practices may not in all cases meet all of the criteria for safe harbor protection from anti-kickback liability. Moreover, there are no safe harbors for many common practices, such as educational and research grants or patient assistance programs;

the federal civil False Claims Act imposes civil penalties, and provides for whistleblower or qui tam actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, claims for payment of government funds that are false or fraudulent, or knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim to avoid, decrease, or conceal an obligation to pay money to the federal government. In recent years, several pharmaceutical and other healthcare companies have faced enforcement actions under the federal False Claims Act for, among other things, allegedly submitting false or misleading pricing information to government health care programs and providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have faced enforcement actions for causing false claims to be submitted because of the company's marketing the product for unapproved, and thus non-reimbursable, uses. Federal enforcement agencies also have showed increased interest in pharmaceutical companies' product and patient assistance programs, including reimbursement and co-pay support services, and a number of investigations into these programs have resulted in significant civil and criminal settlements. In addition, a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act. False Claims Act liability is potentially significant in the healthcare industry because the statute provides for treble damages and mandatory penalties of \$5,500 to \$11,000 per false claim or statement. Because of the potential for large monetary exposure, healthcare and pharmaceutical companies often resolve allegations without admissions of liability for significant and material amounts to avoid the uncertainty of treble damages and per claim penalties that may awarded in litigation proceedings. Companies may be required, however, to enter into corporate integrity agreements with the government, which may impose substantial costs on companies to ensure compliance. Criminal prosecution is also possible for making or presenting a false or fictitious or fraudulent claim to the federal government;

the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, among other

Table of Contents

things, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information. HIPAA also prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement or representation, or making or using any false writing or document knowing the same to contain any materially false fictitious or fraudulent statement or entry in connection with the delivery of or payment for healthcare benefits, items or services;

the federal Physician Payment Sunshine Act, being implemented as the Open Payments Program, imposes annual reporting requirements on certain manufacturers of drugs, devices, or biologics for payments and other transfers of value by them, directly or indirectly, to physicians (including physician family members) and teaching hospitals, as well as ownership and investment interests held by physicians. A manufacturer's failure to submit timely, accurately and completely the required information for all payments, transfers of value or ownership or investment interests may result in civil monetary penalties of up to an aggregate of \$150,000 per year, and up to an aggregate of \$1 million per year for "knowing failures."

Manufacturers must submit reports by the 90th day of each calendar year;

analogous state laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers. Several states also require pharmaceutical companies to report expenses relating to the marketing and promotion of pharmaceutical products in those states and to report gifts and payments to individual health care providers in those states. Some of these states also prohibit certain marketing-related activities, including the provision of gifts, meals, or other items to certain health care providers. In addition, several states require pharmaceutical companies to implement compliance programs or marketing codes; and

similar restrictions imposed on the promotion and marketing of medicinal products in the EU and other countries, including restrictions prohibiting the promotion of a compound prior to its approval. Laws (including those governing promotion and marketing and anti-kickback provisions), industry regulations and professional codes of conduct often are strictly enforced. Even in those countries where we may decide not to directly promote or market our products, inappropriate activity by our any international distribution partners could have implications for us.

The shifting commercial compliance environment and the need to build and maintain robust and expandable systems to comply with different compliance or reporting requirements in multiple jurisdictions increase the possibility that a healthcare or pharmaceutical company may fail to comply fully with one or more of these requirements. Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with applicable fraud and abuse or other healthcare laws and regulations or guidance. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business are found not to be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs. Even if we are not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate

Table of Contents

negative publicity, which could harm our financial condition and divert resources and the attention of our management from operating our business.

Our ability to successfully commercialize our products and generate revenues outside of the U.S. depends heavily on the availability of adequate pricing and reimbursement from government and other third-party payors.

Outside the U.S., certain countries, including a number of EU Member States, set prices and reimbursement for pharmaceutical products, or medicinal products as they are commonly referred to in the EU, with limited participation from the marketing authorization holders. We cannot be sure that such prices and reimbursement will be acceptable to us or our collaborators. If the regulatory authorities in these foreign jurisdictions set prices or reimbursement levels that are not commercially attractive for us or our collaborators, our revenues from sales by us or our collaborators, and the potential profitability of our drug products, in those countries would be negatively affected. An increasing number of countries are taking initiatives to attempt to reduce large budget deficits by focusing cost-cutting efforts on pharmaceuticals for their state-run health care systems. These international price control efforts have impacted all regions of the world, but have been most drastic in the EU.

Additionally, some countries require approval of the sale price of a product before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, which could negatively impact the revenues we are able to generate from the sale of the product in that particular country.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and may affect the prices we may obtain.

In the United States and foreign jurisdictions, legislative and regulatory changes and proposed changes regarding the healthcare system could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval.

In recent years, Congress has considered reductions in Medicare reimbursement levels for drugs administered by physicians. CMS also has authority to revise reimbursement rates and to implement coverage restrictions for some drugs. Cost reduction initiatives and changes in coverage implemented through legislation or regulation could decrease utilization of and reimbursement for any approved products, which in turn would affect the price we can receive for those products. While Medicare regulations apply only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from federal legislation or regulation may result in a similar reduction in payments from private payors.

The Affordable Care Act substantially changes the way healthcare is financed by both governmental and private insurers, and significantly impacts the pharmaceutical industry. The Affordable Care Act is intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for healthcare and health insurance industries, impose new taxes and fees on pharmaceutical and medical device manufacturers, and impose additional health policy reforms. The Affordable Care Act expanded manufacturers' rebate liability under the Medicaid program from fee-for-service Medicaid utilization to include the utilization of Medicaid managed care organizations as well; increased the minimum Medicaid rebate due for most innovator drugs in general from 15.1% of AMP to 23.1% of

Table of Contents

AMP; and capped the total rebate amount for innovator drugs at 100% of AMP. The Affordable Care Act and subsequent legislation also changed the definition of AMP. The Affordable Care Act requires pharmaceutical manufacturers of branded prescription drugs to pay a branded prescription drug fee to the federal government. Each such manufacturer pays a prorated share of the branded prescription drug fee of \$3.0 billion in 2016, based on the dollar value of its branded prescription drug sales to certain federal programs identified in the law. Substantial new provisions affecting compliance have also been enacted, which may affect our business practices with healthcare practitioners. The Affordable Care Act also expanded the 340B program to include additional types of covered entities. On February 1, 2016, CMS issued final regulations to implement the changes to the Medicaid drug rebate program under the Affordable Care Act. These regulations become effective on April 1, 2016. We are evaluating the impact of these regulations on our business and operations. It appears likely that the Affordable Care Act will continue the pressure on pharmaceutical pricing, especially under the Medicare and Medicaid programs, and may also increase our regulatory burdens and operating costs.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. Beginning April 1, 2013, Medicare payments for all items and services, including drugs and biologics, were reduced by 2% under the sequestration (i.e., automatic spending reductions) required by the Budget Control Act of 2011, as amended by the American Taxpayer Relief Act of 2012. Subsequent legislation extended the 2% reduction, on average, to 2025. If Congress does not take action in the future to modify these sequestrations, Medicare Part D plans could seek to reduce their negotiated prices for drugs. Even if favorable coverage and reimbursement status is attained for our products, less favorable coverage policies and reimbursement rates may be implemented in the future.

We cannot be sure whether additional legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes (or in some instances current regulations, guidance or interpretations) on the marketing approvals of our product candidates, if any, may be.

If we breach the license agreements for our products or product candidates, we could lose the ability to continue the development and commercialization of our product candidates.

Our agreements with our licensors, including OPKO, Merck, and AnaptysBio, require us, among other things, to use diligent or commercially reasonable efforts to develop and commercialize the products and product candidates licensed thereunder, make timely milestone, royalty and other payments, provide certain information regarding our activities with respect to such products and product candidates, maintain the confidentiality of information we receive thereunder, and indemnify our licensors with respect to our development and commercialization activities under the terms of the agreements. If we fail to meet these obligations, our licensors have the right to terminate our exclusive licenses and re-obtain the licensed technology as well as aspects of any intellectual property controlled by us and developed during the period the agreements were in force that relate to the licensed technology. This means that our licensors could effectively take control of the development and commercialization of our products and product candidates after an uncured, material breach of our license agreements by us. This would also generally be the case if we voluntarily terminated the agreements. While we would expect to exercise all rights and remedies available to us, including seeking to cure any breach by us, and otherwise seek to preserve our rights under the patents licensed to us, we may not be able to do so in a timely manner, at an acceptable cost or at all. Any uncured, material breach under the licenses could result in our loss of exclusive rights and may lead to a complete termination of our product development and any commercialization efforts for the applicable product or product candidate.

Table of Contents

We may not be successful in obtaining necessary rights to product candidates for our development pipeline through acquisitions and in-licenses.

We do not intend to develop product candidates from our own original research. Our business model is predicated, in part, on our ability to successfully identify and acquire or in-license product candidates for the treatment and support of cancer patients. However, we may be unable to acquire or in-license any product candidates from third parties for various reasons, including because we are focusing on a specific area of care, and we may be unable to identify product candidates that we believe are an appropriate strategic fit for our company.

The in-licensing and acquisition of product candidates is a competitive area, and a number of more established companies are also pursuing strategies to in-license or acquire product candidates that we may consider attractive. These established companies may have a competitive advantage over us due to their size, financial resources and greater clinical development and commercialization capabilities. Furthermore, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to in-license or acquire the relevant product candidate on terms that would allow us to generate an appropriate return on our investment.

In addition, we expect that competition for the in-licensing or acquisition of product candidates that are attractive to us may increase in the future, which may mean fewer suitable opportunities for us as well as higher acquisition or licensing prices. If we are unable to successfully obtain rights to suitable product candidates, our business, financial condition and prospects for growth could suffer.

Product liability lawsuits against us could cause us to incur substantial liabilities and could limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk with the commercialization of VARUBI or any of our current or future product candidates. Product liability claims may be brought against us by subjects enrolled in our clinical trials, patients, healthcare providers or others using, administering or selling our products. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

decreased demand for any product candidates or products that we may develop;

termination of clinical trial sites or entire trial programs;

injury to our reputation and significant negative media attention;

withdrawal of clinical trial participants;

significant costs to defend the related litigation;

substantial monetary awards to trial subjects or patients;

loss of revenue;

diversion of management and scientific resources from our business operations; and

the inability to commercialize any products that we may develop.

We currently hold what we believe to be a commercially reasonable amount of product liability insurance coverage, which may not be adequate to cover all liabilities that we may incur. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. Large judgments have been awarded in class action

lawsuits based on drugs that had unanticipated side effects. A successful

Table of Contents

product liability claim or series of claims brought against us, particularly if judgments exceed our insurance coverage, could consume significant amounts of our cash and adversely affect our business.

We intend to market our products outside of the United States, and we will be subject to the risks of doing business outside of the United States.

Because we intend to market VARUBI and our product candidates, if approved, outside of the United States, our business is subject to risks associated with doing business outside of the United States. Accordingly, our business and financial results in the future could be adversely affected due to a variety of factors, including:

efforts to develop an international sales, marketing and distribution organization may increase our expenses, divert our management's attention from the acquisition or development of product candidates or cause us to forgo profitable licensing opportunities in these geographies;

changes in a specific country's or region's political and cultural climate or economic condition;

unexpected changes in foreign laws and regulatory requirements;

difficulty of effective enforcement of contractual provisions in local jurisdictions;

inadequate intellectual property protection in foreign countries;

trade-protection measures, import or export licensing requirements such as Export Administration Regulations promulgated by the U.S. Department of Commerce and fines, penalties or suspension or revocation of export privileges;

the effects of applicable foreign tax structures and potentially adverse tax consequences; and

significant adverse changes in foreign currency exchange rates.

In addition to FDA and related regulatory requirements in the U.S. and abroad, we are subject to extensive additional federal, state and foreign anti-bribery regulation, which include the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and similar laws in other countries outside of the U.S. We have developed and implemented a corporate compliance program based on what we believe are current best practices in the pharmaceutical industry for companies similar to ours, but we cannot guarantee that we, our employees, our consultants or our third-party contractors are or will be in compliance with all federal, state and foreign regulations regarding bribery and corruption. Moreover, our partners and third party contractors located outside the U.S. may have inadequate compliance programs or may fail to respect the laws and guidance of the territories in which they operate. Even if we are not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could also have an adverse effect on our business, financial condition and results of operations

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on our business.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, failure to provide accurate information to the FDA or comparable foreign regulatory authorities, failure to comply with manufacturing standards, failure to comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, failure to report financial information or data accurately, violations of anti-bribery laws, or failure to disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other

Table of Contents

abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of confidential information obtained in the course of our business, which could result in civil or criminal legal actions, regulatory sanctions, or serious harm to our reputation. We have adopted a Code of Business Conduct and Ethics and other corporate policies, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

We will need to grow the size of our organization, and we may experience difficulties in managing this growth.

As of March 31, 2016, we had 316 full-time employees compared to 286 at the end of December 2015. As our development and commercialization plans and strategies develop, or as a result of any in-licenses or acquisitions of new product candidates, we will continue to need additional managerial, operational, sales, marketing, financial and other resources. Our management, personnel and systems currently in place may not be adequate to support our recent or future growth. Such growth will impose significant added responsibilities on members of management, including:

expanding and maintaining a sales and marketing organization and developing our distribution capabilities;

identifying, recruiting, maintaining, motivating and integrating additional employees;

managing our internal development efforts effectively while complying with our contractual obligations to licensors, licensees, contractors and other third parties;

improving our managerial, development, operational and finance systems; and

expanding our facilities.

As our operations expand, we will need to manage additional relationships with various strategic partners, suppliers and other third parties. Our future financial performance and our ability to commercialize VARUBI and our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our development efforts, including our clinical trials, effectively and hire, train and integrate additional management, administrative and sales and marketing personnel. We may not be able to accomplish these tasks, and our failure to accomplish any of them could prevent us from successfully growing our company.

If we are unable to attract and retain highly qualified personnel, we may not be able to grow effectively.

Our future growth and success depend on our ability to recruit, retain, manage and motivate our employees. Because of the specialized scientific and managerial nature of our business, we rely heavily on our ability to attract and retain qualified scientific, technical and managerial personnel. Our ability to compete and grow depends in large part upon the continued service of our senior management team. In particular, the loss of one or more of our senior executive officers could be detrimental to us if we cannot recruit suitable replacements in a timely manner. The competition for qualified personnel in the biopharmaceutical field is intense and as a result, we may be unable to continue to attract and retain qualified personnel necessary for the development of our business or to recruit suitable replacement personnel.

Table of Contents

Our future success depends on our ability to retain our co-founding executive officers.

We are highly dependent on Leon O. Moulder, Jr., our Chief Executive Officer, and Mary Lynne Hedley, Ph.D., our President and Chief Operating Officer. Although we have offer letter agreements with Mr. Moulder and Dr. Hedley, these agreements are at-will and do not prevent them from terminating their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other employees. The loss of the services of either of these persons could impede the achievement of our research, development and commercialization objectives.

In addition to in-licensing or acquiring product candidates, we may engage in future acquisitions that could disrupt our business, cause dilution to our stockholders and harm our financial condition and operating results.

While we currently have no specific plans to acquire any other businesses, we have, from time to time, evaluated acquisition opportunities and may, in the future, make acquisitions of, or investments in, companies that we believe have products or capabilities that are a strategic or commercial fit with our current product candidates and business or otherwise offer opportunities for our company. In connection with these acquisitions or investments, we may:

issue stock that would dilute our stockholders' percentage of ownership;

incur debt and assume liabilities; and/or

incur amortization expenses related to intangible assets or incur large and immediate write-offs.

We may be unable to find suitable acquisition candidates, and we may not be able to complete acquisitions on favorable terms, if at all. If we do complete an acquisition, we cannot assure you that it will ultimately strengthen our competitive position or that it will not be viewed negatively by customers, financial markets or investors. Further, future acquisitions could also pose numerous additional risks to our operations, including:

problems integrating the purchased business, products or technologies;

increases to our expenses;

the failure to have discovered undisclosed liabilities of the acquired asset or company;

diversion of management's attention from their day-to-day responsibilities;

harm to our operating results or financial condition;

entrance into markets in which we have limited or no prior experience; and

potential loss of key employees, particularly those of the acquired entity.

We may not be able to complete one or more acquisitions or effectively integrate the operations, products or personnel gained through any such acquisition without a material adverse effect on our business, financial condition and results of operations.

Our therapeutic product candidates, including niraparib, may be approved only in combination with companion diagnostics to support certain uses. We may have difficulty receiving approval for or adoption of our therapeutic product candidates for those uses from FDA and

comparable foreign regulatory agencies, or may have difficulty achieving adoption of our product candidates, if applicable companion diagnostics are not commercially available, or are restricted in their use by payors or other market forces.

For certain of our cancer therapeutic product candidates, including niraparib, we believe certain diagnostic tests or specific clinical criteria will allow us to identify cancer patients who will be more likely to respond to the drug. We plan to rely on diagnostic tests to help us more accurately identify

Table of Contents

patients with those criteria both during our clinical trials and in connection with the commercialization of certain of our product candidates, including niraparib. Diagnostic tests, including companion diagnostics, are subject to regulation by the FDA and comparable foreign regulatory authorities as medical devices and require separate regulatory approval prior to commercialization. We do not develop diagnostic tests internally. We are therefore dependent on the sustained cooperation and effort of third-party collaborators in developing and obtaining approval for these tests. For example, our niraparib product candidate will use a test owned and administered by a third party to identify breast cancer patients with a BRCA gene mutation during clinical testing. We are also evaluating niraparib in patients with certain homologous recombinant deficiency, or HRD, scores. The test to determine this HRD score is owned and administered by the same third party that administers the BRCA gene mutation test. Therefore, it is possible that niraparib will be approved for these indications only in combination with one of these diagnostic tests. This third party may encounter difficulties in developing and obtaining approval for its test, or may fail to support the clinical development of niraparib for breast cancer as we expect, or may fail to keep the test on the market even if it is approved. Any such delay or failure could delay or prevent approval or adoption of niraparib, or other products we may later acquire with similar characteristics.

Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems, and those of our collaborators, our CROs and other third parties on which we rely, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities and the further development of our product candidates could be delayed.

Our failure to comply with data protection laws and regulations could lead to government enforcement actions and significant penalties against us, and adversely impact our operating results.

We are subject to U.S. data protection laws and regulations (i.e., laws and regulations that address privacy and data security) at both the federal and state levels. The legislative and regulatory landscape for data protection continues to evolve, and in recent years there has been an increasing focus on privacy and data security issues. Numerous federal and state laws, including state data breach notification laws, state health information privacy laws, and federal and state consumer protection laws, govern the collection, use, and disclosure of health-related and other personal information. In addition, we may obtain health information from third parties (e.g., healthcare providers who prescribe our products) that are subject to privacy and security requirements under HIPAA. Although we are not directly subject to HIPAA other than potentially with respect to providing certain employee benefits we could be subject to criminal penalties if we knowingly obtain or disclose individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA. Finally, a data breach affecting sensitive personal information, including health information, could result in significant legal and financial exposure and reputational damages that could potentially have an adverse effect on our business.

EU Member States, Switzerland and other countries have also adopted data protection laws and regulations, which impose significant compliance obligations. For example, the collection and use of personal health data in the European Union is governed by the provisions of the EU Data Protection Directive, or the Directive. The Directive and the national implementing legislation of the EU Member

Table of Contents

States impose strict obligations and restrictions on the ability to collect, analyze and transfer personal data, including health data from clinical trials and adverse event reporting. In particular, these obligations and restrictions concern the consent of the individuals to whom the personal data relates, the information provided to the individuals, notification of data processing obligations to the competent national data protection authorities and the security and confidentiality of the personal data. Data protection authorities from the different EU Member States may interpret the Directive and national laws differently and impose additional requirements, which add to the complexity of processing personal data in the EU.

Guidance on implementation and compliance practices are often updated or otherwise revised. For example, the EU Data Protection Directive prohibits the transfer of personal data to countries outside of the European Economic Area, or EEA, that are not considered by the European Commission to provide an adequate level of data protection. These countries include the United States. A recent judgment by the Court of Justice of the European Union determined the U.S.-EU Safe Harbor Framework, which was relied upon by many U.S. entities as a basis for transfer of personal data from the European Union to the U.S., to be invalid. U.S. entities therefore must use alternate procedures for such data transfer. In addition, the EU Data Protection Regulation, intended to replace the current Data Protection Directive, which will be officially adopted in the first quarter of 2016 and applicable two years after its publication in the Official Journal for the European Union, will introduce new data protection requirements in the EU and substantial fines for breaches of the data protection rules. The EU Data Protection Regulation will increase our responsibility and liability in relation to personal data that we process, and we may be required to put in place additional mechanisms to ensure compliance with the new data protection rules.

Our failure to comply with these laws, or changes in the way in which these laws are implemented, could lead to government enforcement actions and significant penalties against us, and adversely impact our operating results.

Risks Related to Our Dependence on Third Parties

We have no manufacturing facility, and we are dependent on a limited number of third-party manufacturers for the manufacture of VARUBI and our product candidates, as well as on a number of third parties for our supply chain. If we experience problems with any of these third parties, the manufacturing of VARUBI or our product candidates could be delayed, which could harm our ability to generate revenues from our approved products, our ability to obtain regulatory approval for our product candidates, and our results of operations.

We do not own or operate facilities for the manufacture of VARUBI or our product candidates. We currently have no plans to build our own clinical or commercial scale manufacturing capabilities. We currently work with one contract manufacturing organization, or CMO, Hovione, for the production of rolapitant drug substance used for VARUBI and IV rolapitant, and one other CMO, Patheon, for commercial production of VARUBI. We also currently work with a CMO for the production of IV rolapitant drug product for clinical use.

Table of Contents

As our drug development pipeline matures and we continue to commercialize VARUBI and, if approved, our other product candidates, including niraparib and IV rolapitant, we will have a greater need for clinical study and commercial manufacturing capacity. We have limited experience manufacturing pharmaceutical products on a commercial scale, and some of our suppliers will need to increase their scale of production to meet our projected needs for commercial manufacturing. For example, to meet our projected needs for commercial manufacturing of VARUBI, Patheon will need to increase scale of production. The development of commercial-scale manufacturing capabilities may require our third-party manufacturers to invest substantial additional funds and hire and retain the technical personnel who have the necessary manufacturing experience. Our third-party manufacturers may not successfully complete any required increase to existing manufacturing capacity in a timely manner, or at all. Because of the complex nature of our compounds, our manufacturers may not be able to manufacture our compounds at an acceptable cost or in sufficient quantities or in a timely manner necessary to make commercially successful products, or may require us to pay significant costs, including for capital improvements to their facilities. Therefore, successful commercialization of VARUBI or any of our product candidates, including niraparib and IV rolapitant, may require us to establish large-scale commercial manufacturing capabilities. If our contract manufacturers or other third parties fail to deliver VARUBI and our potential future products, including niraparib and IV rolapitant, for commercial sale on a timely basis, with sufficient quality, and at commercially reasonable prices, and we fail to find replacement manufacturers or to develop our own manufacturing capabilities, we may be required to delay or suspend commercialization of VARUBI or our other potential future products.

Existing inventory for niraparib drug substance and drug product from Merck provided the initial clinical trial material needed for our niraparib clinical program. We have agreements in place with CMOs for the further production of niraparib to meet our clinical supply needs. For preclinical development of our immuno-oncology antibody product candidates, we currently work with one CMO for the production of biologics. For each of our product candidates, we may elect to pursue arrangements with other CMOs for manufacturing clinical supplies for later-stage trials and for commercialization. We have not yet qualified alternate suppliers in the event the current CMOs we utilize are unable to scale production, or if we otherwise experience any problems with them. If we are unable to arrange for alternative third-party manufacturing sources, or to do so on commercially reasonable terms or in a timely manner, we may not be able to complete development of our product candidates, or market or distribute them.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured product candidates or products ourselves, including reliance on the third party for regulatory compliance and quality assurance, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control (including a failure to synthesize and manufacture our product candidates or any products we may eventually commercialize in accordance with our specifications) and the possibility of termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or damaging to us. In addition, the FDA and similar foreign authorities require that our product candidates and approved products, such as VARUBI, be manufactured according to cGMP and similar foreign standards. Any failure by our third-party manufacturers to comply with cGMP or failure to scale up manufacturing processes, including any failure to deliver sufficient quantities of product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval of any of our product candidates. Specifically, following regulatory inspections of the facilities of one of our contract manufacturers of rolapitant IV, the FDA issued the manufacturer a Form 483 containing a number of inspection observations regarding such facilities, and the U.K. Medicines and Healthcare Products Regulatory Agency, or MHRA, withdrew the manufacturer's cGMP certificate for one of its facilities and recommended a recall of products made at two of its facilities. If the contract manufacturer fails or is unable to address and remediate these observations in a manner satisfactory to the FDA, then this

Table of Contents

failure could result in a delay in the expected timing of regulatory approval of rolapitant IV in the United States. In addition, such failure could be the basis for the FDA or an equivalent foreign regulatory authority to issue a warning or untitled letter, withdraw approvals for product candidates previously granted to us, or take other regulatory or legal action, including recall or seizure, total or partial suspension of production, suspension of ongoing clinical trials, refusal to approve pending applications or supplemental applications, detention of product, refusal to permit the import or export of products, injunction, or imposition of civil and criminal penalties.

Any significant disruption in our supplier relationships could harm our business. We source key materials from third parties, either directly through agreements with suppliers or indirectly through our manufacturers who have agreements with suppliers. There are a small number of suppliers for certain capital equipment and key materials that are used to manufacture our drug products and product candidates. Such suppliers may not sell these key materials to our manufacturers at the times we need them or on commercially reasonable terms. We do not have any control over the process or timing of the acquisition of these key materials by our manufacturers. Moreover, we currently do not have any agreements for the commercial production of these key materials. Any significant delay in the supply of a product candidate or its key materials for an ongoing clinical study could considerably delay completion of our clinical studies, product testing and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase these key materials for VARUBI or for our product candidates after regulatory approval, the commercial launch of our product candidates could be delayed or there could be a shortage in supply, which would impair our ability to generate revenues from the sale of VARUBI or our product candidates.

We rely on third parties to conduct our preclinical and clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for, or commercialize, our product candidates, and our business could be substantially harmed.

We rely upon AnaptysBio to discover and conduct preclinical research and development on antibody product candidates targeting PD-1, TIM-3 and LAG-3 in accordance with the research programs that we jointly establish for those candidates. Although we participate in the planning of these programs, we do not directly control the amount or timing of resources devoted by AnaptysBio to activities related to these product candidates. AnaptysBio may not commit sufficient resources to our research and development programs for these candidates. If AnaptysBio fails to commit sufficient resources to any of our antibody product candidates, our preclinical programs related to the candidate could be delayed, terminated, or unsuccessful. Furthermore, if we fail to make required payments to AnaptysBio, including up-front, milestone, reimbursement or royalty payments, or to observe other obligations in our agreement with AnaptysBio, AnaptysBio may not be required to perform its obligations under the agreement and may have the right to terminate the agreement.

We also have relied upon and plan to continue to rely upon third-party CROs to monitor and manage data for our ongoing preclinical and clinical programs. We rely on these parties for execution of our preclinical and clinical trials, and we control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on collaborators and CROs does not relieve us of our regulatory responsibilities. We also rely on these third parties to assist in conducting our preclinical studies in accordance with good laboratory practices and Animal Welfare Act requirements. We and our collaborators and CROs are required to comply with good clinical practices, or GCP, which are regulations and guidelines enforced by the FDA, the competent authorities of the member countries of the EEA, and comparable foreign regulatory authorities for all of our products in clinical development. Regulatory authorities enforce GCP through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our collaborators or CROs fail to comply with applicable GCP, the clinical data generated in our clinical trials may be deemed unreliable and the

Table of Contents

FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials complies with GCP requirements. In addition, our clinical trials must be conducted with product produced under cGMP requirements. Failure to comply with these regulations may require us to repeat preclinical and clinical trials, which would delay the regulatory approval process and our ability to generate and grow revenues.

AnaptysBio and our CROs are not our employees, and except for remedies available to us under our agreements with such third parties, we cannot control whether or not they devote sufficient time and resources to our ongoing clinical, nonclinical and preclinical programs. If our collaborators and CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our preclinical and clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed.

Because we have relied and plan to continue to rely on third parties for the foregoing preclinical and clinical functions, our internal capacity to perform these functions is limited. Outsourcing these functions involves risks that third parties may not perform to our standards, may not produce results in a timely manner, or may fail to perform at all. In addition, the use of third-party service providers requires us to disclose our proprietary information to these parties, which could increase the risk that this information will be misappropriated. We have a limited number of employees, which limits the internal resources we have available to identify and monitor our third-party providers. To the extent we are unable to identify and successfully manage the performance of third-party service providers in the future, our business may be adversely affected. Although we carefully manage our relationships with AnaptysBio and our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

If we lose our relationships with CROs, our drug development efforts could be delayed.

We rely on third-party vendors and CROs for preclinical studies and clinical trials related to our drug development efforts. Switching or adding additional CROs involves additional cost, requires management time and focus, and could result in substantial delays in our development programs. Our CROs have the right to terminate their agreements with us in the event of an uncured material breach. In addition, some of our CROs have an ability to terminate their respective agreements with us if it can be reasonably demonstrated that the safety of the subjects participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors, or if we are liquidated. Identifying, qualifying and managing the performance of third-party service providers can be difficult, time consuming and cause delays in our development programs. In addition, there is a natural transition period when a new CRO commences work and the new CRO may not provide the same type or level of services as the original provider. If any of our relationships with our third-party CROs terminates, we may not be able to enter into arrangements with alternative CROs or do so on commercially reasonable terms.

Table of Contents

Risks Related to Our Intellectual Property

If we are unable to protect our intellectual property rights, our competitive position could be harmed, and we could be required to incur significant expenses to enforce our rights.

We depend on our ability to protect our proprietary technology. We rely on trade secret, patent, copyright and trademark laws, and confidentiality, licensing and other agreements with employees and third parties, all of which offer only limited protection. Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary technology and products. Patents may cover the composition of matter of products, pharmaceutical formulations, processes for or intermediates useful in the manufacture of products or the uses of products. Protection for individual products extends for varying periods in accordance with the legal life of patents in the various countries. The protection afforded, which may also vary from country to country, depends upon the type of patent and its scope of coverage. Where we have the right to do so under our license agreements, we seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and products that are important to our business. The patent positions of biotechnology and pharmaceutical companies generally are highly uncertain, involve complex legal and factual questions and have in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patents, including those patent rights licensed to us by third parties, are highly uncertain.

The steps we have taken to protect our proprietary rights may not be adequate to preclude misappropriation of our proprietary information or infringement of our intellectual property rights, both inside and outside the United States. The rights already granted under any of our currently issued patents and those that may be granted under future issued patents may not provide us with the proprietary protection or competitive advantages we are seeking. If we are unable to obtain and maintain patent protection for our technology and products, or if the scope of the patent protection obtained is not sufficient, our competitors could develop and commercialize technology and products similar or superior to ours, and our ability to successfully commercialize our technology and products may be adversely affected. Further, under our agreement with Merck for niraparib, Merck is responsible, subject to certain exceptions, for prosecuting the licensed patents, and we are reliant on them to do so in a diligent fashion, subject to our right to review and approve their prosecution activities. If Merck fails to conduct such activities diligently, does not take approved actions, or otherwise fails to adequately protect our licensed patent rights, we may not obtain or maintain broad proprietary protection for niraparib. Similarly, under our agreement with AnaptysBio, during preclinical development of our antibody product candidates, AnaptysBio has primary responsibility for prosecuting certain licensed patents at our expense, subject in certain circumstances to our right to prior approval of expenses. If AnaptysBio fails to conduct such activities diligently, does not take approved actions, or otherwise fails to adequately protect our licensed patent rights, we may not obtain or maintain broad proprietary protection for antibody product candidates targeting PD-1, TIM-3 and LAG-3.

With respect to patent rights, we do not know whether any of the pending patent applications for any of our licensed compounds will result in the issuance of patents that protect our technology or products, or whether they will effectively prevent others from commercializing competitive technologies and products. Although we have a number of issued patents under our licensing agreements covering our technology, our pending applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications. Further, the examination process may require us or, in the case of niraparib and our antibody product candidates during preclinical development, our licensor, to narrow the claims, which may limit the scope of patent protection that may be obtained. Because the issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, issued patents that we own or have licensed from third parties may be challenged in the courts or patent offices in the United States and abroad. Such

Table of Contents

challenges may result in the loss of patent protection, the narrowing of claims in such patents, or the invalidity or unenforceability of such patents, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection for our technology and products. Protecting against the unauthorized use of our patented technology, trademarks and other intellectual property rights is expensive, difficult and, may in some cases not be possible. In some cases, it may be difficult or impossible to detect third-party infringement or misappropriation of our intellectual property rights, even in relation to issued patent claims, and proving any such infringement may be even more difficult.

The patent prosecution process is expensive and time-consuming, and we, or in the case of niraparib and our antibody product candidates during preclinical development, our licensor, may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we or our licensors will fail to identify patentable aspects of inventions made in the course of our development and commercialization activities before it is too late to obtain patent protection on them. Further, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. We expect to seek extensions of patent terms where they are available in any countries where we are prosecuting patents. This includes in the United States under the Drug Price Competition and Patent Term Restoration Act of 1984, which permits a patent term extension of up to five years beyond the expiration of the patent. However the applicable authorities, including the FDA in the United States, and any equivalent regulatory authority in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to our patents, or may grant more limited extensions than we request. If this occurs, our competitors may be able to take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection. The laws of foreign countries may not protect our rights to the same extent as the laws of the United States, and these foreign laws may also be subject to change. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions typically are not published until 18 months after filing, or in some cases not at all. Therefore we cannot be certain that we or our licensors were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions.

Previously, in the United States, assuming the other requirements for patentability are met, the first to make the claimed invention was entitled to the patent. Outside the United States, the first to file a patent application is entitled to the patent. In March 2013, the United States transitioned to a 'first to file' system in which the first inventor to file a patent application will be entitled to the patent. Under either the previous or current system, third parties will be allowed to submit prior art prior to the issuance of a patent by the United States Patent and Trademark Office, and may become involved in opposition, derivation, reexamination, inter-partes review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, which could adversely affect our competitive position with respect to third parties.

We may become involved in lawsuits to protect or enforce our intellectual property, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our patents or misappropriate or otherwise violate our intellectual property rights. To counter infringement or unauthorized use, litigation may be necessary in the future to enforce or defend our intellectual property rights, to protect our trade secrets or to determine the

Table of Contents

validity and scope of our own intellectual property rights or the proprietary rights of others. This can be expensive and time consuming. Many of our current and potential competitors have the ability to dedicate substantially greater resources to defend their intellectual property rights than we can. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property. Litigation could result in substantial costs and diversion of management resources, which could harm our business and financial results. In addition, in an infringement proceeding, a court may decide that a patent owned by or licensed to us is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In the U.S., the Hatch-Waxman act provides generic companies valuable incentives to seek to invalidate patents for human pharmaceutical products approved under an NDA. As a result, it is likely that our U.S. patents covering approved drugs such as rolapitant and niraparib, if approved, will be challenged in Hatch-Waxman litigation and administrative proceedings, and may not be upheld. We may face generic manufacturer challenges to our patents outside the U.S. as well. The entry of generic competitors typically results in a rapid decline in sales.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability and the ability of our collaborators to develop, manufacture, market and sell our product candidates, and to use our proprietary technologies without infringing the proprietary rights of third parties. And, because patent applications in the United States and many other jurisdictions are maintained in secrecy for at least 18 months, the patent landscape is continuously evolving. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference proceedings before the U.S. Patent and Trademark Office. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future. For example, we are aware of third party patents that contain broad claims potentially relevant to certain therapeutic uses of immune checkpoint receptors, and we are also aware of ongoing patent litigation involving third parties in the area. If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and commercializing our products and technology, which could impact the profitability of our products. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, in any such proceeding or litigation, we could be found liable for monetary damages. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Any claims by third parties that we have misappropriated their confidential information or trade secrets could have a similar negative impact on our business.

We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

Many of our employees, including our senior management, were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Some of these employees, including members of our senior management, executed proprietary rights, non-disclosure and non-competition agreements in connection with such previous employment.

Table of Contents

Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's former employer. We are not aware of any threatened or pending claims related to these matters or concerning the agreements with our senior management, but in the future litigation may be necessary to defend against such claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

Intellectual property disputes could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical personnel, management personnel, or both, from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the market price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and products, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts both within and outside the United States may be less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position.

Risks Related to Ownership of Our Common Stock

The price of our stock has been, and may continue to be, volatile, and you could lose all or part of your investment.

The trading price of our common stock is highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. Since our initial public offering, which occurred in June 2012, the price of our common stock on the NASDAQ Global Select Market has ranged from \$11.05 per share to \$80.69 per share. In addition to the factors discussed in this "Risk

Table of Contents

Factors" section and elsewhere in this prospectus and the documents incorporated by reference, these factors include:

- the success of competitive products or technologies;
- regulatory actions with respect to our products or our competitors' products;
- actual or anticipated changes in our growth rate relative to our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- results of clinical trials of our product candidates or those of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to in-license or acquire additional product candidates or products;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- changes in the structure of healthcare payment systems;

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market conditions in the pharmaceutical and biotechnology sectors; and

general economic, industry and market conditions.

In addition, the stock market in general, and the NASDAQ Global Select Market and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in these "Risk Factors," could have a dramatic and material adverse impact on the market price of our common stock.

Forecasting sales of VARUBI may be difficult, and if our revenue projections are inaccurate, our business may be harmed and our stock price may decline.

Our sales of VARUBI will be difficult to forecast. Factors that increase the difficulty of forecasting sales of VARUBI include the following:

the cost and availability of reimbursement for the product;

treatment guidelines issued by government and non-government agencies;

Table of Contents

the timing of market entry relative to competitive products;

the availability of alternative therapies;

the price of VARUBI relative to alternative therapies, including generic versions of products that compete with our product;

the rates of returns and rebates;

uncertainty about the pace of acceptance of VARUBI;

the ability of our third-party manufacturers to manufacture and deliver VARUBI in commercially sufficient quantities;

the ability of our third-party distributors in the United States to process orders in a timely manner and satisfy their obligations to us;

the extent and success of our marketing efforts; and

potential side effects or unfavorable publicity concerning our product or similar products.

The extent to which any of these or other factors individually or in the aggregate may impact future sales of VARUBI is uncertain and difficult to predict. Our management must make forecasting decisions regarding future revenue in the course of business planning despite this uncertainty, and actual results of operations may deviate materially from projected results. If our revenues from VARUBI sales are lower than we anticipate, we will incur costs in the short term that will result in losses that are unavoidable. A shortfall in revenue would have a direct impact on our expected cash flow, our stock price and on our business generally. Furthermore, to the extent that any projections we disclosed publicly regarding future sales of VARUBI or our financial performance are incorrect, including as a result of the challenges in forecasting sales of VARUBI, our stock price could be adversely affected, and we could be subject to an increased risk of litigation. In addition, fluctuations in our quarterly results can adversely and significantly affect the market price of our common stock.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our common stock may be volatile, and in the past, some companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

Our principal stockholders and management own a significant percentage of our stock and are collectively able to exert significant control over matters subject to stockholder approval.

Our executive officers, directors and their or our respective affiliates beneficially owned approximately 36.7% of our voting stock as of June 29, 2016. This group of stockholders has the potential ability to control us through their ownership position. Acting together, these stockholders may be able to determine the outcomes of certain matters requiring stockholder approval. For example, this group may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders. The interests of this group of stockholders may not always coincide with your interests or the interests of other stockholders, and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their common stock, and might affect the prevailing market price for our common stock.

Table of Contents

If we fail to maintain an effective system of internal control over financial reporting in the future, we may not be able to accurately report our financial condition, results of operations or cash flows, which may adversely affect investor confidence in us and, as a result, the value of our common stock.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls for financial reporting and disclosure controls and procedures. We are required, under Section 404 of the Sarbanes-Oxley Act, to furnish an annual report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment must include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. A material weakness is a control deficiency, or combination of control deficiencies, in internal control over financial reporting that results in more than a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis. Section 404 of the Sarbanes-Oxley Act also generally requires an attestation from our independent registered public accounting firm on the effectiveness of our internal control over financial reporting.

Our compliance with Section 404 requires that we incur substantial accounting expense and expend significant management efforts. We have limited experience complying with Section 404, and if in the future we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal control over financial reporting is effective. Furthermore, we cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations or cash flows. If our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by the NASDAQ, the U.S. Securities and Exchange Commission, or the SEC, or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

We are incurring increased costs as a result of operating as a public company, and our management will be required to devote substantial time to compliance initiatives.

We incur significant legal, accounting and other expenses as a public company, and these expenses will increase even more as our compliance obligations increase, including as a result of the requirement to obtain an attestation from our independent registered public accounting firm on the effectiveness of our internal control over financial reporting. We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Protection Act, as well as rules adopted, and to be adopted, by the SEC and the NASDAQ Stock Market. Our management and other personnel need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations have substantially increased, and will continue to increase, our legal and financial compliance costs and have made and will make some activities more time-consuming and costly. These increased costs have increased, and will continue to increase, our consolidated net loss. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain sufficient coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

Table of Contents

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

As of March 31, 2016, we had 44,714,130 shares of common stock outstanding. Sales of a substantial number of shares of our common stock or other securities in the public market or in private placements could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. Of these outstanding shares, 16,840,891 were held by directors, executive officers and other parties that may be deemed to be their or our affiliates and are available for sale subject to volume limitations, other restrictions under securities laws and, in some cases, vesting schedules. We also have registered shares of common stock that we may issue under our equity compensation plans. These shares can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates.

Furthermore, certain persons who were stockholders prior to our initial public offering are entitled to registration rights under the Securities Act of 1933, or the Securities Act, with respect to shares they hold, which includes 15,711,073 shares held by our directors, executive officers and other parties that may be deemed to be their or our affiliates. In addition, we have agreed to register the resale of 1,420,857 shares sold in a private placement in March of 2016. Registration of any of these shares under the Securities Act would result in such shares becoming freely tradable without restrictions under the Securities Act, except with respect to shares purchased by affiliates. Any sales of shares by these stockholders could have a material adverse effect on the trading price of our common stock.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

We are subject to the periodic reporting requirements of the Exchange Act. Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by us in reports we file or submit under the Exchange Act is accumulated and communicated to management, recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements or insufficient disclosure due to error or fraud may occur and may not be detected.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that we will need significant additional capital in the future to continue our planned operations. To raise capital, we may sell substantial amounts of common stock or securities convertible into or exchangeable for common stock. These future issuances of common stock or common stock-related securities, together with the exercise of outstanding stock options and any additional shares

Table of Contents

issued in connection with acquisitions, if any, may result in material dilution to our investors. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to those of holders of our common stock.

Pursuant to our equity incentive plans, our compensation committee is authorized to grant equity-based incentive awards to our directors, executive officers and other employees and service providers, including officers, employees and service providers of our subsidiaries and affiliates. The initial number of shares of our common stock available for future grant under our 2012 Omnibus Incentive Plan, or the 2012 Incentive Plan, which became effective in April 2012, was 1,428,571 plus the number of shares of our common stock reserved for issuance under our 2010 Stock Incentive Plan, or the 2010 Incentive Plan, as of the effective date of the 2012 Incentive Plan (which is an additional 6,857 shares). On May 14, 2015, our stockholders approved an additional 2,000,000 shares for issuance under our 2012 Incentive Plan. The number of shares of our common stock reserved for issuance under our 2012 Incentive Plan will be increased (i) from time to time by the number of shares of our common stock forfeited upon the expiration, cancellation, forfeiture, cash settlement or other termination of awards under our 2010 Incentive Plan following the effective date of the 2012 Incentive Plan, and (ii) on January 1 of each year, by a number of shares of common stock equal to the lesser of (x) 4% of the shares of common stock outstanding at such time, or (y) the number of shares determined by our board of directors. As of March 31, 2016, there were 1,376,165 shares of our common stock reserved for issuance under our 2012 Incentive Plan. On May 14, 2015, our stockholders approved our 2015 Non-Employee Director Stock Incentive Plan, or the 2015 Director Plan. The number of shares of our common stock available for future grant under our 2015 Director Plan is 387,571. Future stock option grants and issuances of common stock under our equity plans may have an adverse effect on the market price of our common stock.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us or increase the cost of acquiring us, even if doing so would benefit our stockholders, or remove our current management. These provisions include:

authorizing the issuance of "blank check" preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;

prohibiting cumulative voting in the election of directors, which would otherwise allow for less than a majority of stockholders to elect director candidates;

prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;

eliminating the ability of stockholders to call a special meeting of stockholders; and

establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management. Because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may discourage, delay or prevent someone from acquiring us or merging with us whether or not it is desired by or beneficial to our stockholders. Under Delaware law, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital

Table of Contents

stock unless the holder has held the stock for three years or, among other things, the board of directors has approved the transaction. Any provision of our amended and restated certificate of incorporation or amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who cover us downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

Risks Related to Our Indebtedness

Servicing our debt will require significant amounts of cash, and we may not have sufficient cash flow from our business to pay our debt.

Our ability to make scheduled payments of the principal of, to pay interest on, to pay any cash due upon conversion of, or to refinance, our indebtedness, including the Convertible Notes, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

Despite our current debt levels, we may still incur additional debt. If we incur substantial additional debt, these higher levels of debt may affect our ability to pay the principal of and interest on the Convertible Notes.

We and our subsidiaries may be able to incur substantial additional debt in the future, some of which may be secured debt. The indenture governing the Convertible Notes does not restrict our ability to incur additional indebtedness or require us to maintain financial ratios or specified levels of net worth or liquidity. If we incur substantial additional indebtedness in the future, these higher levels of indebtedness may affect our ability to pay the principal of and interest on the Convertible Notes, or any fundamental change in purchase price or any cash due upon conversion, and our creditworthiness generally.

The conditional conversion feature of the Convertible Notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion feature of the Convertible Notes is triggered, holders of notes will be entitled to convert their notes at any time during specified periods at their option. If one or more holders elect to convert their notes, unless we satisfy our conversion obligation by delivering solely shares of our common stock (other than cash in lieu of any fractional share), we would be required to settle all or a portion of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their notes, we

Table of Contents

could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Convertible Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

The accounting method for convertible debt securities that may be settled in cash, such as the Convertible Notes, could have a material effect on our reported financial results.

Pursuant to Accounting Standards Codification Subtopic 470-20, *Debt with Conversion and Other Options*, which we refer to as ASC 470-20, an entity must separately account for the liability and equity components of the convertible debt instruments (such as the Convertible Notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. The effect of ASC 470-20 on the accounting for the Convertible Notes is that the equity component is required to be included in the additional paid-in capital caption of stockholders' equity on our consolidated balance sheet and the value of the equity component would be treated as original issue discount for purposes of accounting for the debt component of the Convertible Notes. As a result, we will be required to record a greater amount of non-cash interest expense in current periods presented as a result of the amortization of the discounted carrying value of the Convertible Notes to their face amount over the term of the Convertible Notes. We will report greater losses in our financial statements because ASC 470-20 will require interest to include both the current period's amortization of the debt discount and the instrument's coupon interest, which could adversely affect our reported or future financial results, the market price of our common stock and the trading price of the Convertible Notes.

In addition, under certain circumstances, convertible debt instruments (such as the Convertible Notes) that may be settled entirely or partly in cash are currently accounted for utilizing the treasury stock method, the effect of which is that the shares issuable upon conversion of the Convertible Notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the Convertible Notes exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares issuable upon conversion of the Convertible Notes, then our diluted earnings per share would be adversely affected.

To the extent we issue shares of our common stock to satisfy all or a portion of our conversion obligation, conversions of the Convertible Notes may dilute the ownership interest of our existing stockholders.

Upon conversion of the Convertible Notes, we have the option to pay or deliver, as the case may be, either cash, shares of our common stock, or a combination of cash and shares of our common stock. To the extent we issue shares of our common stock to satisfy all or a portion of our conversion obligation, the conversion of some or all of the Convertible Notes will dilute the ownership interests of our existing stockholders. Any sales in the public market of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the Convertible Notes may encourage short selling by market participants because the conversion of the Convertible Notes could depress the price of our common stock.

The fundamental change purchase feature of the Convertible Notes may delay or prevent an otherwise beneficial attempt to take over our Company.

The terms of the Convertible Notes require us to offer to purchase the Convertible Notes for cash in the event of a fundamental change. A non-stock takeover of our Company may trigger the requirement that we purchase the Convertible Notes. This feature may have the effect of delaying or preventing a takeover of our Company that would otherwise be beneficial to investors.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We are currently subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and in accordance therewith file periodic reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy (at prescribed rates) any such reports, proxy statements and other information at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. Our SEC filings are also available to you on the SEC's website at <http://www.sec.gov> and in the "Investors" section of our website at <http://www.tesaro.com>. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We incorporate information into this prospectus by reference, which means that we disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except to the extent superseded by information contained in this prospectus. This prospectus incorporates by reference the documents set forth below, the file number for each of which is 001-35587, that have been previously filed with the SEC (other than, in each case, documents or information deemed to have been "furnished" and not "filed" in accordance with SEC rules):

our Annual Report on Form 10-K for the year ended December 31, 2015 (including the portions of our proxy statement for our 2016 annual meeting of stockholders incorporated by reference therein);

our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2016;

our Current Reports on Form 8-K filed with the SEC on January 11, 2016 (Item 8.01), March 14, 2016, April 4, 2016 (as amended on May 13, 2016), April 11, 2016, May 12, 2016, June 6, 2016 (Item 8.01) and June 29, 2016; and

the description of our common stock contained in our registration statement on Form 8-A filed under the Exchange Act on June 27, 2012, 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 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. Unless specifically stated to the contrary, none of the information that we disclose under Items 2.02 or 7.01 of any Current Report on Form 8-K that we may from time to time furnish to the SEC will be incorporated by reference into, or otherwise included in, this prospectus.

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 obtain copies of any of these filings by contacting us at the address and telephone number indicated below or by contacting the SEC as described above under the section entitled "Where You Can Find More Information." Documents incorporated by reference are available from us

Table of Contents

without charge, excluding all exhibits unless an exhibit has been specifically incorporated by reference into this prospectus, by requesting them in writing or by telephone at:

TESARO, Inc.
Attention: Corporate Secretary
1000 Winter Street, Suite 3300
Waltham, Massachusetts 02451
(339) 970-0900

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains and incorporates by references certain forward-looking statements. Any accompanying prospectus supplement may also do so. We may, in some cases, use terms such as "believes," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should," "approximately" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our commercialization plans for rolapitant, including the progress of the commercial launch of VARUBI and the potential timing of the launch of the IV formulation, our intent to in-license or acquire additional product candidates, our ongoing and planned preclinical studies and clinical trials, our expectations regarding our discovery for immunotherapy antibodies, including the expected timing, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, the degree of clinical utility of our product candidates, particularly in specific patient populations, expectations regarding clinical trial data, our results of operations, cash needs, spending of the proceeds from this offering, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, and industry change and depend on economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, any accompanying prospectus supplement, or any document incorporated by reference herein, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and events in the industry in which we operate may differ materially from the forward-looking statements contained in this prospectus, any accompanying prospectus supplement and any document incorporated by reference herein. In addition, even if our results of operations, financial condition and liquidity, and events in the industry in which we operate are consistent with the forward-looking statements contained in this prospectus and any accompanying prospectus supplement, they may not be predictive of results or developments in future periods.

Actual results could differ materially from our forward-looking statements due to a number of factors, including risks related to:

uncertainties inherent in the development, launch or commercialization of any new pharmaceutical product and the execution and completion of clinical trials, including sales and marketing capabilities;

the difficulties in obtaining and maintaining regulatory approval of our product candidates, and the labeling under any approval we may obtain;

uncertainties surrounding the success and timing of availability of data from our preclinical studies and clinical trials, ongoing discussions with and actions by regulatory authorities, patient accrual rates for clinical trials, manufacturing and supply risks, and other matters that could

Table of Contents

affect the timing of data, the potential regulatory approval, or the commercial availability of our product candidates or the success of any product;

the rate and degree of market acceptance of any of our product candidates;

the size and growth of the potential markets for our product candidates and our ability to serve those markets;

our use of the proceeds from this offering;

our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;

obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;

regulatory developments in the United States and foreign countries;

the coverage and reimbursement of our product and product candidates, if approved;

recently enacted and future legislation regarding the healthcare system;

our ability to recruit or retain key scientific or management personnel or to retain our executive officers;

the success of competing therapies and products that are or become available; and

the performance of third parties, including contract research organizations and third-party manufacturers.

Any forward-looking statements that we make in this prospectus, the accompanying prospectus supplement and documents incorporated by reference speak only as of the date of such statement, and we undertake no obligation to update such statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of unanticipated events. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

You should also read carefully the information described in the "Risk Factors" section of this prospectus and any accompanying prospectus supplement and elsewhere to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus and any accompanying prospectus supplement will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all. The Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act of 1933, as amended, the Securities Act, do not protect any forward-looking statements that we make in connection with this offering.

INDUSTRY AND MARKET DATA

We obtained the industry, market and competitive position data in this prospectus, any accompanying prospectus supplement and documents incorporated by reference from our own internal estimates and research as well as from industry and general publications and

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research surveys and studies conducted by third parties. While we believe that each of these studies and publications is reliable, we have not independently verified market and industry data from third-party sources. While we believe our internal company research is reliable and the market definitions we use are appropriate, neither such research nor these definitions have been verified by any independent source.

Table of Contents

ABOUT THE COMPANY

We are an oncology-focused biopharmaceutical company dedicated to improving the lives of cancer patients. We have in-licensed and are currently developing oncology-related product candidates, including rolapitant, niraparib as well as the product candidates under our immuno-oncology platform. Our current products and product candidates are as follows:

Rolapitant is a potent and long-acting neurokinin-1, or NK-1, receptor antagonist for the prevention of chemotherapy induced nausea and vomiting. VARUBI, the oral form of rolapitant, was approved by the United States Food and Drug Administration in combination with other antiemetic agents in adults for the prevention of delayed nausea and vomiting associated with initial and repeat courses of emetogenic cancer chemotherapy, including, but not limited to, highly emetogenic chemotherapy. The Company commenced sales of VARUBI during the fourth quarter of 2015.

Niraparib is an orally active and potent poly (ADP-ribose) polymerase inhibitor.

Immuno-Oncology Platform includes product candidates for the discovery and development of antibodies for several immuno-oncology targets added through a collaboration and exclusive license agreement with AnaptysBio, Inc.

We commenced business operations in May 2010. Our operations to date have been primarily focused on organizing and staffing our company, raising capital, identifying, acquiring and developing product candidates, undertaking preclinical studies and clinical trials, manufacturing activities related to our product and product candidates, and the commercialization of VARUBI. We have only recently launched our first commercial product, and to date we have recorded limited revenues from product sales and a license related to the development of rolapitant in China. We have financed our operations primarily with net proceeds from public and private offerings of our common stock, private placements of our preferred stock and the issuance of convertible notes.

Our principal executive offices are located at 1000 Winter Street, Suite 3300, Waltham, Massachusetts 02451, and our telephone number is (339) 970-0900. Our internet website is www.tesarobio.com. We make our electronic filings with the Securities Exchange Commission (the "SEC"), including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports, available on our website free of charge as soon as practicable after we file or furnish them with the SEC. Information on our website is not a part of, or incorporated by reference into, this prospectus.

USE OF PROCEEDS

Any accompanying prospectus supplement will set forth our intended use of the net proceeds from the sale of our securities offered by us, which could include, among other uses, general corporate purposes.

Unless otherwise set forth in a prospectus supplement, we will not receive any proceeds in the event that securities are sold by a selling securityholder.

Table of Contents**RATIO OF EARNINGS TO FIXED CHARGES**

The table below presents the ratio of earnings to combined fixed charges and preferred stock dividends and the coverage deficiency for the three months ended March 31, 2016 and the last five completed fiscal years.

	For the Three Months Ended March 31,		For the Year Ended December 31,			
	2016	2015	2014	2013	2012	2011
Ratio of earnings to combined fixed charges and preferred stock dividends	deficiency	deficiency	deficiency	deficiency	deficiency	deficiency
Deficiency (in thousands)	\$ (90,767)	\$ (251,408)	\$ (171,012)	\$ (92,362)	\$ (61,763)	\$ (16,398)

Our earnings were inadequate to cover fixed charges for each of the periods indicated above. The amount of the deficiency by which our earnings did not cover our fixed charges for each such period is disclosed in the second line of the above table, in thousands of dollars.

For purposes of calculating the ratio of earnings to fixed charges, earnings are calculated as follows: (i) adding (a) pre-tax income (loss) from continuing operations; (b) fixed charges; (c) amortization of capitalized interest; (d) distributed income of equity investees; and (e) our share of pre-tax losses of equity investees for which charges arising from guarantees are included in fixed charges; and (ii) then subtracting from such sum (a) interest capitalized; and (b) noncontrolling interest in pre-tax income of subsidiaries that have not incurred fixed charges. Fixed charges are calculated as the sum of (a) interest costs (both expensed and capitalized), (b) amortized premiums, discounts and capitalized expenses related to indebtedness and (c) an estimate of the interest within rental expense.

This information should be read in conjunction with our consolidated financial statements and the accompanying notes incorporated by reference in this prospectus.

DESCRIPTION OF OUR COMMON STOCK

The following, together with the additional information we include in the applicable prospectus supplement, describes the common stock that we may offer under this prospectus, including the material provisions of our amended and restated certificate of incorporation and our amended and restated bylaws, the investors' rights agreement to which we and certain of our stockholders are parties, the investor agreement to which we and certain of our stockholders are parties and certain provisions of the Delaware General Corporation Law. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws investors' rights agreement and investor agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

General

Our amended and restated certificate of incorporation authorizes us to issue up to 110,000,000 total shares, including 100,000,000 shares of common stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share. As of June 29, 2016, there were 45,907,187 shares of our common stock outstanding and held of record by 34 holders. As of June 29, 2016, there were 7,162,792 shares of our common stock issuable upon the exercise of outstanding options.

Table of Contents

Voting Rights. Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders.

Dividends. Subject to the preferences that may be applicable to any outstanding preferred stock, holders of our common stock shall be entitled to receive ratably any dividends that may be declared by the board of directors out of funds legally available for that purpose.

Liquidation. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock.

No Preemptive or Similar Rights. Our common stock is not entitled to preemptive rights and is not subject to conversion, redemption or sinking fund provisions.

Preferred Stock

Under our amended and restated certificate of incorporation our board of directors has the authority, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations and restrictions. Our board of directors also can increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common 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 control of our company and may adversely affect the market price of our common stock and the voting and other rights of the holders of common stock.

Anti-Takeover Provisions

Maximum Number of Directors. Our amended and restated certificate of incorporation and amended and restated bylaws do not limit the maximum size of our board of directors.

No Cumulative Voting. Under Delaware law, cumulative voting for the election of directors is not permitted unless a corporation's certificate of incorporation authorizes cumulative voting. Our amended and restated certificate of incorporation and amended and restated bylaws do not provide for cumulative voting in the election of directors.

Special Stockholder Meetings. Our amended and restated certificate of incorporation and amended and restated bylaws provide that a special meeting of stockholders may be called only by a written request from a majority of our board of directors.

No Stockholder Action by Written Consent. Our amended and restated certificate of incorporation and amended and restated bylaws require that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by a consent in writing.

Issuance of Undesignated Preferred Stock. Our amended and restated certificate of incorporation provide our board of directors with the authority, without further action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by the board of directors.

Section 203 of the Delaware General Corporation Law. We are governed by the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. This section

Table of Contents

prevents some Delaware corporations from engaging, under some circumstances, in a business combination, which includes a merger or sale of at least 10% of the corporation's assets with any interested stockholder, meaning a stockholder who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of the corporation's outstanding voting stock, unless:

the transaction is approved by the board of directors prior to the time that the interested stockholder became an interested stockholder;

upon consummation of the transaction which resulted in the stockholder's becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding stock owned by directors who are also officers of the corporation; or

subsequent to such time that the stockholder became an interested stockholder the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders by at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Stockholder Advance Notice Procedure. Our amended and restated bylaws establish an advance notice procedure for stockholders to make nominations of candidates for election as directors or to bring other business before an annual meeting of our stockholders. The amended and restated bylaws provide that any stockholder wishing to nominate persons for election as directors at, or bring other business before, an annual meeting must deliver to our secretary a written notice of the stockholder's intention to do so. To be timely, the stockholder's notice must be delivered to, or mailed and received by, us not later than 90 days nor earlier than 120 days prior to the anniversary date of the preceding year's annual meeting, except that if the annual meeting is set for a date that is not within 30 days before or 60 days after such anniversary date, we must receive the notice not earlier than the 120th day prior to such annual meeting and not later than the 90th day prior to such annual meeting or the 10th day following the day on which we provide the notice or public disclosure of the date of the meeting. The notice must include the following information:

As to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made:

the name and address of the stockholder and of such beneficial owner, if any;

the class and number of shares of our capital stock owned beneficially and of record by such stockholder and such beneficial owner, if any;

if applicable, a description of all agreements, arrangements or understandings with respect to the nomination or proposal between or among such stockholder and such beneficial owner, if any, any of their respective affiliates or associates, and any others acting in concert with the foregoing;

if applicable, a description of all agreements, arrangements or understandings (including any derivative or short positions, profit interests, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that have been entered into as of the date of the stockholders' notice by, or on behalf of, such stockholder and such beneficial owner, if any, the effect or intent of which is to mitigate loss, manage risk or

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Table of Contents

benefit of share price changes for, or increase or decrease the voting power of, such stockholder and such beneficial owner, if any, with respect to our shares of stock;

such other information relating to such stockholder and such beneficial owner, if any, as would be required to be included in a proxy statement or other filings to be made in connection with solicitations of proxies for the election of directors in a contested election under the SEC's proxy rules;

a representation that the stockholder is a holder of record of our stock, entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination;

a representation whether the stockholder or the beneficial owner, if any, intends, or is part of a group which intends, (a) to deliver a proxy statement and/or form of proxy to holder of at least the percentage of our outstanding capital stock required to approve or adopt the proposal or elect the nominee(s) and/or (b) otherwise to solicit proxies from stockholders in support of such proposal or nomination; and

such other information that the board of directors may request in its discretion.

As to each person whom a stockholder proposes to nominate for election as a director:

such person's name, age, business address and, if known, residential address;

such person's principal occupation or employment;

the class, series and number of shares of our stock that is, directly or indirectly, owned, beneficially or of record, by such person;

if applicable, a description of all agreements, arrangements or understandings between the stockholder and each nominee and any other person or persons, naming such person or persons, pursuant to which the nomination is to be made by the stockholder;

such other information regarding each nominee as would be required to be included in a proxy statement filed under the SEC's proxy rules if the nominee had been nominated, or intended to be nominated, by the board of directors; and

the consent of each nominee to be named in the proxy statement as a nominee and to serve as a director if elected.

As to any other business that the stockholder proposes to bring before the meeting:

a brief description of the business desired to be brought before the meeting and the reason for conducting such business at the meeting;

the text of the proposal or business;

any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and

any other information concerning such matter that must be included in a proxy statement filed under the SEC's proxy rules as if the matter had been proposed, or intended to be proposed, by the board of directors.

Registration Rights

Second Amended and Restated Investors' Rights Agreement

We entered into a second amended and restated investors' rights agreement, dated June 6, 2011, as amended June 7, 2011 and March 18, 2016, with the holders of our preferred stock and, in connection

Table of Contents

with the March 18, 2016 amendment, certain purchasers in a 2016 private placement of our common stock, or the 2016 Private Placement. Under the amended and restated investors' rights agreement, we granted registration rights to the holders of 17,131,930 shares, or approximately 37.3% of our common stock outstanding as of June 29, 2016. The holders of these shares or their transferees are entitled to certain rights with respect to the registration of such shares under the Securities Act until the shares are sold in a transaction in which the holder does not assign the registration rights.

Demand Registration Rights. At any time, fifty percent or more of the shares having demand registration rights may request that we register all or a portion of their shares. We will effect the registration as requested, unless, in the good faith judgment of our board of directors, such registration would be materially detrimental to us and our stockholders and should be delayed. In addition, because we are eligible for the use of Form S-3, holders of a majority of the shares having demand registration rights may make unlimited requests that we register all or a portion of their common stock for sale under the Securities Act on Form S-3, or any successor form, so long as the aggregate price to the public in connection with any such offering is at least \$1.0 million.

Incidental Registration Rights. In addition, if at any time after this offering we register any shares of our common stock, the holders of all shares having registration rights are entitled to notice of the registration and to include all or a portion of their common stock in the registration.

Other Provisions. In the event that any registration in which the holders of registrable shares participate pursuant to the investors' rights agreement is an underwritten public offering, the number of registrable shares to be included may, in specified circumstances, be limited due to market conditions.

We will pay all registration expenses, other than underwriting discounts and selling commissions, and the reasonable fees and expenses, other than underwriting discounts and selling commissions, and the reasonable fees and expenses of a single special counsel for the selling stockholders, related to any demand or piggyback registration. The investors' rights agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them. The demand, piggyback and Form S-3 registration rights described above will expire or expired, as the case may be, with respect to any particular stockholder that was not also a purchaser in our 2016 Private Placement, five years after our initial public offering, with respect to any purchaser in our 2016 Private Placement, on March 18, 2019, or, in either case, such earlier time when that stockholder holds less than 1% of our common stock and can or could sell any of his, her or its shares under Rule 144 of the Securities Act, or after the consummation of a liquidation event.

Investor Agreement

We entered into an investor agreement, dated March 18, 2016, with certain purchasers in the 2016 Private Placement. Under the investor agreement, we granted registration rights to the holders of 1,420,857 shares, or approximately 3.1% of our common stock outstanding as of June 29, 2016. The holders of these shares or their transferees are entitled to certain rights with respect to the registration of such shares under the Securities Act until the shares are sold in a transaction in which the holder does not assign the registration rights.

Pursuant to the investor agreement, we agreed to use our commercially reasonable efforts to file no later than September 18, 2016 a prospectus supplement to cover the registration of all of the shares having registration rights under the investor agreement, except in the event we are engaged in a material transaction or where the purchasers have breached the standstill or lockup provisions of the investor agreement.

Table of Contents

We will pay all registration expenses, other than underwriting discounts and selling commissions, and the reasonable fees and expenses, other than underwriting discounts and selling commissions, and the reasonable fees and expenses of special experts for the selling stockholders, related to any registration. The investor agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them. The registration rights described above will expire upon the earlier of (i) such time as all the registrable securities are sold under an effective registration statement or all such registrable securities are eligible for sale pursuant to Rule 144 of the Securities Act and can be sold in no more than two transactions in a period of three months and one day in accordance with the volume limitations contained in Rule 144 of the Securities Act, (ii) the date in which our common stock is no longer registered pursuant to Section 12 of the Exchange Act or (iii) after the consummation of a liquidation event.

Choice of Forum

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty owed by any of our directors, officers or employees to us or our stockholders; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law; or any action asserting a claim against us that is governed by the internal affairs doctrine.

Limitation on Liability and Indemnification of Directors and Officers

Our amended and restated certificate of incorporation and amended and restated bylaws limit our directors' and officers' liability to the fullest extent permitted under Delaware corporate law. Specifically, our directors and officers will not be liable to us or our stockholders for monetary damages for any breach of fiduciary duty by a director or officer, except for liability:

for any breach of the director's or officer's duty of loyalty to us or our stockholders;

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

for unlawful dividends or stock repurchases under Section 174 of the Delaware General Corporation Law; or

for any transaction from which a director or officer derives an improper personal benefit.

If the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors or officers, then the liability of our directors or officers shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

The provision regarding indemnification of our directors and officers in our amended and restated certificate of incorporation will generally not limit liability under state or federal securities laws.

Delaware law and our amended and restated certificate of incorporation and amended and restated bylaws provide that we will, in certain situations, indemnify any person made or threatened to be made a party to a proceeding by reason of that person's former or present official capacity with us against judgments, penalties, fines, settlements and reasonable expenses. Any such person is also entitled, subject to certain limitations, to payment or reimbursement of reasonable expenses (including attorneys' fees and disbursements and court costs) in advance of the final disposition of the proceeding.

Table of Contents

We maintain a directors' and officers' insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers. We believe that these indemnification provisions and insurance are useful to attract and retain qualified directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent that, in a class action or direct suit, we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

In addition, we have entered into indemnification agreements with each of our directors and executive officers, which also provide, subject to certain exceptions, for indemnification for related expenses, including, among others, reasonable attorney's fees, judgments, fines and settlements incurred in any action or proceeding. Certain of our non-employee directors may, through their relationships with their employers, be insured and/or indemnified against certain liabilities incurred in their capacity as members of our board of directors.

There is currently no pending material litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought.

Transfer Agent and Registrar

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

Book Entry; Uncertificated Shares

Our common stock is issued in book-entry form through the direct registration system. Under this system, unless a common stockholder requests a physical stock certificate, ownership of our common stock is reflected in account statements periodically distributed to our common stockholders by our transfer agent, who will hold the book-entry shares on behalf of our common stockholders. However, any holder of our common stock who wishes to receive a physical stock certificate evidencing his, her or its shares of our common stock may at any time obtain a stock certificate at no charge by contacting our transfer agent.

Listing

Our common stock is listed on the NASDAQ Global Select Market under the symbol "TSRO."

Table of Contents

DESCRIPTION OF DEBT SECURITIES

The following, together with the additional information we include in any applicable prospectus supplement, describes the debt securities that we may offer under this prospectus. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to the indentures governing our senior debt and subordinated debt securities, which we refer to as the "Senior Debt Securities Indenture" and "Subordinated Debt Securities Indenture," respectively. The Senior Debt Securities Indenture, dated as of September 29, 2014, by and between the Company and U.S. Bank National Association, as trustee, and the form of Subordinated Debt Securities Indenture, each of which we refer to individually as an "Indenture" and which we refer to collectively as the "Indentures," have been filed as exhibits to the registration statement of which this prospectus is a part. We will file any supplemental indenture as an exhibit to reports that we file with the SEC and incorporate by reference in this prospectus and the applicable prospectus supplement.

The Indentures are and will be subject to and governed by the Trust Indenture Act of 1939, as amended. The description of the Indentures set forth below assumes that we have entered into both of the Indentures. We will execute and deliver the Subordinated Debt Securities Indenture when and if we issue subordinated debt securities. Unless otherwise specified, capitalized terms used but not defined in this prospectus have the meanings set forth in the Indentures.

General

The debt securities offered under this prospectus will be our direct obligations. Senior debt securities will rank equally in right of payment with our other senior and unsubordinated debt that may be outstanding from time to time, and will rank senior in right of payment to all of our subordinated debt securities that may be outstanding from time to time. Subordinated debt securities will be subordinated in right of payment to the prior payment in full of our senior debt, as described under "Subordination" below.

Each Indenture provides that we may issue debt securities without limit as to aggregate principal amount, in one or more series, in each case as established from time to time in or pursuant to authority granted by one or more resolutions of our board of directors or as established in one or more indentures supplemental to the Indenture. All debt securities of one series need not be issued at the same time and, unless otherwise provided, a series may be reopened, without the consent of the holders of the debt securities of such series, for issuances of additional debt securities of such series.

Each Indenture provides that there may be more than one trustee thereunder, each with respect to one or more series of debt securities. Any trustee under either Indenture may resign or be removed with respect to one or more series of debt securities, and we will appoint a successor trustee, by or pursuant to a resolution adopted by our board of directors, to act with respect to such series. If two or more persons are acting as trustee with respect to different series of debt securities, each such trustee will be a trustee of a trust under the applicable Indenture separate and apart from the trust administered by any other trustee thereunder, and, except as otherwise indicated in either of the Indentures, any action described to be taken by the trustee may be taken by each such trustee with respect to, and only with respect to, the one or more series of debt securities for which it is trustee under the Indenture.

The particular terms of any series of debt securities being offered by us under this prospectus will be described in the applicable prospectus supplement relating to that series of debt securities. Those terms may include:

- (1) the title of such series of debt securities;

Table of Contents

- (2) the classification of such debt securities as senior debt securities or subordinated debt securities;
- (3) the aggregate principal amount of such debt securities and any limit on such aggregate principal amount;
- (4) the percentage of the principal amount of such debt securities that will be issued and, if other than the entire principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof or, if applicable, the portion of the principal amount thereof that is convertible in accordance with the provisions of the applicable Indenture, or the method by which such portion shall be determined;
- (5) the terms and conditions, if any, upon which such debt securities may be convertible into or exchangeable for our other securities or for securities of another person or other property (including cash or any combination thereof) and the terms and conditions upon which such conversion or exchange will be effected, including, without limitation, the initial conversion price or rate (or manner of calculation thereof), the portion that is convertible or exchangeable or the method by which any such portion shall be determined, the conversion period, provisions as to whether conversion or exchange will be at the option of the holders, the Company, or such other person, the events requiring an adjustment of the conversion or exchange price and provisions affecting conversion or exchange in the event of the redemption of such debt securities;
- (6) the date or dates, or the method for determining such date or dates, on which the principal of such debt securities will be payable;
- (7) the rate or rates, or the method by which such rate or rates shall be determined, at which such debt securities will bear interest, if any;
- (8) the date or dates, or the method for determining such date or dates, from which any such interest will accrue, the date or dates on which any such interest will be payable, the regular record dates for the interest payment dates, or the method by which the regular record dates are to be determined, the person to whom such interest will be payable if other than the registered holder, and the basis upon which interest shall be calculated if other than that of a 360-day year of twelve 30-day months;
- (9) the place or places (other than or in addition to the Borough of Manhattan, The City of New York) where the principal of (and premium, if any) and interest and any additional amounts related to specified taxes imposed on the holders of such debt securities, or "Additional Amounts," on such debt securities will be payable, where such debt securities may be surrendered for conversion or registration of transfer or exchange, and where notices or demands to or upon us in respect of such debt securities and the applicable Indenture may be served;
- (10) the date or dates on which, or period or periods within which, the price or prices at which, the currency in which, and the other terms and conditions upon which such debt securities may be redeemed, in whole or in part, at our option, if we are to have such an option;
- (11) our obligation, if any, to redeem, repay or purchase such debt securities pursuant to any sinking fund or analogous provision or at the option of a holder thereof, and the date or dates on which, or period or periods within which, the price or prices at which, the currency or currencies in which, and the other terms and conditions upon which such debt securities will be redeemed, repaid or purchased, in whole or in part, pursuant to such obligation;
- (12) if other than U.S. dollars, the foreign currency or currencies in which such debt securities are denominated and payable, which may be a foreign currency or units of two or more foreign currencies or a composite currency or currencies, and the terms and conditions relating thereto;

Table of Contents

(13) whether the amount of payments of principal of (and premium, if any) or interest on such debt securities may be determined with reference to an index, formula or other method (which index, formula or method may, but need not be, based on one or more currencies, commodities, equity indices or other indices) and the manner in which such amounts shall be determined;

(14) whether such debt securities will be secured or unsecured and if secured, the nature of the collateral securing the debt securities;

(15) whether such debt securities will be issued in the form of one or more global securities and whether such global securities are to be issuable in a temporary global form or permanent global form;

(16) any deletions from, modifications of or additions to the events of default or covenants of the Company with respect to such debt securities, whether or not such events of default or covenants are consistent with the events of default or covenants set forth in the applicable Indenture;

(17) whether the principal of (and premium, if any) or interest or Additional Amounts, if any, on such debt securities are to be payable, at our election or a holder's election, in one or more currencies other than that in which such debt securities are payable in the absence of the making of such an election, the date or dates on which, or period or periods within which, and the terms and conditions upon which, such election may be made, and the time and manner of, and identity of the exchange rate agent with responsibility for, determining the exchange rate between the currency or currencies in which such debt securities are payable in the absence of the making of such an election and the currency or currencies in which such debt securities are to be payable upon the making of such an election;

(18) whether such debt securities will be issued in certificated or book-entry form and if in certificated form, the form and/or terms of the certificates or other documents and the other conditions to be satisfied;

(19) whether such debt securities will be in registered or bearer form, or both, the terms, if any, on which securities in registered form and in bearer form may be exchanged for each other, and the denominations thereof if other than \$1,000 and any integral multiple thereof;

(20) the applicability, if any, of the defeasance and covenant defeasance provisions of the applicable Indenture, and any provisions in modification of, in addition to or in lieu of such provisions;

(21) if such debt securities are to be issued upon the exercise of warrants, the time, manner and place for such debt securities to be authenticated and delivered;

(22) whether and to what extent such debt securities will be guaranteed by a guarantor and the identity of such guarantor;

(23) provisions, if any, granting special rights to the holders of such debt securities upon the occurrence of such events as may be specified;

(24) whether and under what circumstances we will pay Additional Amounts as contemplated in the applicable Indenture on such debt securities to any holder thereof who is not a U.S. person and, if so, whether we will have the option to redeem such debt securities in lieu of making such payment and the terms of any such option;

(25) the name of the applicable trustee and the address of its corporate trust office and, if other than the trustee, the name of each security registrar and paying agent;

Table of Contents

(26) the date as of which any debt securities in temporary global security shall be dated if other than the date of original issuance; and

(27) any other terms of such debt securities not inconsistent with the provisions of the applicable Indenture.

Debt securities offered under this prospectus may be original issue discount securities, in that they provide for less than the entire principal amount thereof to be payable upon declaration of acceleration of the maturity thereof. If they are original issue discount securities, the special U.S. federal income tax, accounting and other considerations applicable to such securities will be described in the applicable prospectus supplement.

Except as set forth herein or in any prospectus supplement, neither Indenture contains any provisions that would limit our ability to incur indebtedness or that would afford holders of debt securities protection in the event of a highly leveraged or similar transaction involving us or in the event of a change in control of us.

Our rights and the rights of our creditors, including holders of debt securities offered under this prospectus, to participate in the assets of our subsidiaries upon the liquidation or recapitalization of such subsidiaries or otherwise will be subject to the prior claims of such subsidiaries' respective secured and unsecured creditors (except to the extent that our claims as a creditor may be recognized).

Denominations, Interest, Registration and Transfer

Unless otherwise described in the applicable prospectus supplement, the debt securities of any series offered under this prospectus will be issuable in denominations of \$1,000 and integral multiples thereof.

Unless otherwise specified in the applicable prospectus supplement, the principal of (and premium, if any) and interest and any Additional Amounts on any series of debt securities offered under this prospectus will be payable at the office or agency we designate in accordance with the Indenture. Unless otherwise specified in the applicable prospectus supplement, payment of interest on any such series of debt securities to the holders thereof on any regular record date will be made to each person entitled thereto. Payments of interest will be made by wire transfer in immediately available funds to such person's account within the United States, if such person has provided us with appropriate wire transfer instructions, or by check, if we have not been provided with such wire transfer instructions.

Unless otherwise specified in the applicable prospectus supplement, any interest not punctually paid or duly provided for on any interest payment date with respect to a debt security offered under this prospectus, or "Defaulted Interest," will forthwith cease to be payable to the holder on the applicable regular record date and may either be paid to the person in whose name such debt security is registered at the close of business on a special record date, which we refer to as the "Special Record Date," for the payment of such Defaulted Interest to be fixed by the applicable trustee, with notice thereof to be given to the holder of such debt security not less than 10 days prior to such Special Record Date, or may be paid at any time in any other lawful manner, all as more completely described in the applicable Indenture.

Subject to certain limitations imposed upon debt securities issued in book-entry form, the debt securities of any series offered under this prospectus will be exchangeable for other debt securities in registered form of the same series and of a like aggregate principal amount and containing identical terms and conditions upon surrender of such debt securities at the corporate trust office of the applicable trustee or at an office or agency we establish in accordance with the Indenture. In addition, subject to certain limitations imposed upon debt securities issued in book-entry form, the debt securities of any series offered under this prospectus may be surrendered for registration of transfer thereof at the corporate trust office of the trustee or other office or agency referred to above. Every

Table of Contents

debt security surrendered for registration of transfer or exchange shall be duly endorsed or accompanied by a written instrument of transfer. No service charge will be made for any registration of transfer or exchange of any debt securities (other than specified exchanges not involving a transfer), but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

We may change the paying agent or security registrar under either Indenture without prior notice to the holders of the series of debt securities outstanding thereunder, and also may act as the paying agent and security registrar for such series.

Neither we nor the trustee for any series of debt securities offered under this prospectus will be required to:

issue, register the transfer of or exchange debt securities of any series during a period beginning at the opening of business 15 days before any selection of debt securities of that series to be redeemed and ending at the close of business on the day of mailing of the relevant notice of redemption;

register the transfer of or exchange any debt security, or portion thereof, called for redemption, except the unredeemed portion of any debt security being redeemed in part; or

issue, register the transfer of or exchange any debt security which has been surrendered for repayment at the option of the holder, except the portion, if any, of such debt security not to be so repaid.

Covenants

Existence. Except as described under "Consolidation, Merger and Sale of Assets" below, we and each guarantor, if any, of the debt securities are required to do or cause to be done all things necessary to preserve and keep in full force and effect our and its corporate existence, rights and franchises, except that (a) we are not and any such guarantor is not obligated to preserve any right or franchise and (b) none of the guarantors is obligated to preserve its existence, in either case if we determine that the preservation thereof is no longer desirable in the conduct of our business and that the loss thereof is not disadvantageous in any material respect to the holders of the debt securities issued under the Indenture.

Maintenance of Properties. We will cause and will cause each of our subsidiaries to cause all of our and their material properties used or useful in the conduct of our or their business to be maintained and kept in good condition, repair and working order and supplied with all necessary equipment and will cause to be made all necessary repairs, renewals, replacements, betterments and improvements thereof, all as in our judgment may be necessary so that the business carried on in connection therewith may be properly and advantageously conducted at all times, except that we and any subsidiary may discontinue the operation and maintenance of any such properties if we determine or the subsidiary determines that the discontinuance thereof is desirable in the conduct of our or its business and is not disadvantageous in any material respect to the holders of the debt securities issued under the Indenture.

Payment of Taxes and Other Claims. We will pay or discharge or cause to be paid or discharged, before the same shall become delinquent, (1) all material taxes, assessments and governmental charges levied or imposed upon us or any subsidiary or upon the income, profits or property of us or any subsidiary, and (2) all material lawful claims for labor, materials and supplies which, if unpaid, might by law become a lien upon the property of us or any subsidiary, unless such lien would not have a material adverse effect upon such property, except that we will not be required to pay or discharge or cause to be paid or discharged any such tax, assessment, charge or claim (a) whose amount,

Table of Contents

applicability or validity is being contested in good faith by appropriate proceedings or (b) for which we have set apart and maintain an adequate reserve.

Delivery of SEC and Other Reports to the Trustee. We will ensure delivery to the trustee within 15 calendar days after we file annual and quarterly reports, information, documents and other reports with the SEC, copies of such reports and information, documents and other reports which we are required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act. If we at any time are no longer subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, we will continue to provide the trustee with reports containing substantially the same information as we would have been required to file with the SEC if we had continued to have been subject to such reporting requirements. In such event, we will provide the trustee with such reports at the times at which we would have been required to provide the reports if it had continued to have been subject to such reporting requirements. Any report we file with the SEC that is available on the SEC's website at <http://www.sec.gov> will be deemed to have been provided to the trustee.

Additional Covenants. Any additional material covenants of us contained in an Indenture for a series of debt securities offered under this prospectus, or any deletions from or modifications of the covenants described above, will be described in the applicable prospectus supplement.

Consolidation, Merger and Sale of Assets

Each Indenture provides that we shall not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets (as an entirety or substantially as an entirety in one transaction or a series of related transactions) to, another person, unless (1) the resulting, surviving or transferee person (if not us) is a person organized and existing under the laws of the United States of America, any state thereof or the District of Columbia, and such entity (if not us) expressly assumes by supplemental indenture, executed and delivered to the trustee, all of our obligations under the applicable series of debt securities and such Indenture and (2) immediately after giving effect to such transaction, no default has occurred and is continuing under such Indenture. Upon any such consolidation, merger or transfer, the resulting, surviving or transferee person shall succeed to, and shall be substituted for, and may exercise every right and power of, us under the applicable Indenture.

Events of Default, Notice and Waiver

Each Indenture provides that the following events are "Events of Default" with respect to any series of debt securities issued thereunder:

- (1) default in any payment of interest on, or any Additional Amounts payable in respect of, any debt security of such series when due and payable, which default continues for a period of 30 days;
- (2) default in the payment of the principal amount of (or premium, if any, on) any debt security of such series when due and payable at its stated maturity, upon required repurchase, upon declaration of acceleration or otherwise;
- (3) our failure to comply with our obligations under "Consolidation, Merger and Sale of Assets";
- (4) our failure for 90 days after written notice from the trustee or the holders of at least 25% of such series of debt securities then outstanding has been received by us to comply with any of our other agreements contained in the applicable Indenture; and
- (5) certain events of bankruptcy, insolvency, or reorganization relating to us or any Significant Subsidiary of us or any guarantor of any debt security of such series.

Table of Contents

The term "Significant Subsidiary" means each significant subsidiary of the Company as defined in Regulation S-X promulgated under the Securities Act.

The applicable prospectus supplement may contain information relating to deletions from, modifications of or additions to this list of events of default.

If an Event of Default under either Indenture with respect to debt securities of any series offered under this prospectus at the time outstanding, other than an Event of Default specified in clause (5) above, occurs and is continuing, then in every such case the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may declare the principal amount (or, if the debt securities of that series are original issue discount securities or indexed securities, such portion of the principal amount as may be specified in the terms thereof) of all of the outstanding debt securities of that series to be due and payable immediately by written notice thereof to us (and to the applicable trustee if given by the holders), and upon any such declaration such principal or specified portion thereof shall become immediately due and payable. If an Event of Default specified in clause (5) above occurs, all unpaid principal of and accrued interest on the outstanding debt securities of that series (or such lesser amount as may be provided for in the debt securities of such series) shall ipso facto become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of any debt security of that series.

At any time after a declaration of acceleration with respect to debt securities of the applicable series has been made, but before a judgment or decree for payment of the money due has been obtained by the applicable trustee, the holders of not less than a majority in principal amount of outstanding debt securities of such series may rescind and annul such declaration and its consequences if (1) we shall have paid or deposited with the applicable trustee all required payments of the principal of (and premium, if any) and interest, and any Additional Amounts, on the debt securities of such series, plus certain fees, expenses, disbursements and advances of the trustee and (2) all Events of Default, other than the non-payment of principal (or premium, if any) or interest on debt securities of such series, have been cured or waived as provided in the applicable Indenture. Each Indenture also provides that the holders of not less than a majority in principal amount of the outstanding debt securities of any series may waive any past default with respect to such series and its consequences, except a default (a) in the payment of the principal of (or premium, if any) or interest or any Additional Amounts on any debt security of such series, (b) in the conversion or exchange of the debt securities in accordance with their terms or (c) in respect of a covenant or provision contained in the applicable Indenture that may not be modified or amended without the consent of the holders of all outstanding debt securities affected thereby.

Each trustee is required to give notice to the holders of debt securities within 90 days after a default under the applicable Indenture, except that the trustee may withhold notice to the holders of any series of debt securities of any default with respect to such series (except a default in the payment of the principal of (or premium, if any) or interest or any Additional Amounts on any debt security of such series or in the payment of any sinking fund installment in respect of any debt security of such series) if specified responsible officers of the trustee consider in good faith such withholding to be in the interest of such holders.

Each Indenture provides that no holders of debt securities of any series offered under this prospectus may institute any proceedings, judicial or otherwise, with respect to the applicable Indenture or for any remedy thereunder, except in the case of failure of the trustee thereunder, for 60 days, to act after it has received a written request to institute proceedings in respect of an Event of Default from the holders of not less than 25% in principal amount of the outstanding debt securities of such series (and no direction inconsistent with such written request has been given to the trustee by holders of a majority in principal amount of the outstanding debt securities of that series), as well as an offer of indemnity satisfactory to it. This provision, however, will not prevent any holder of such debt

Table of Contents

securities from instituting suit for the enforcement of payment of the principal of (and premium, if any) and interest on, and any Additional Amounts payable with respect to, such debt securities at the respective due dates thereof or for the enforcement of any conversion right in such debt securities.

Subject to provisions in each Indenture relating to its duties in case of default, each trustee is under no obligation to exercise any of its rights or powers under the applicable Indenture at the request or direction of any holders of any series of debt securities offered under this prospectus then outstanding under such Indenture, unless such holders shall have offered to the applicable trustee security or indemnity satisfactory to the trustee. The holders of not less than a majority in principal amount of the applicable outstanding debt securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or of exercising any trust or power conferred upon the trustee. The trustee, however, may refuse to follow any direction which is in conflict with any law or the applicable Indenture, which may involve the trustee in personal liability or which may be unduly prejudicial to the holders of debt securities of such series not joining in such direction.

Within 120 days after the close of each fiscal year, we and each guarantor, if any, of any series of debt securities offered under a prospectus supplement must deliver to each trustee a certificate, signed by one of several specified officers, as to such officer's knowledge of its compliance with all conditions and covenants of the applicable Indenture and, in the event of any noncompliance, specifying such noncompliance and the nature and status thereof.

Modification of the Indentures

Subject to specified exceptions, each Indenture and any series of debt securities outstanding under such Indenture may be amended by a supplemental indenture with the consent of the holders of at least a majority in principal amount of such outstanding series of debt securities (including consents obtained in connection with a purchase of, or tender offer or exchange offer for, such series of debt securities) and, subject to specified exceptions, any past default or compliance with any provisions may be waived with the consent of the holders of at least a majority in principal amount of such outstanding series of debt securities. However, without the consent of each holder of an outstanding debt security of such series affected thereby, no amendment may, among other things:

reduce the amount of debt securities whose holders must consent to an amendment or waiver;

reduce the rate of or extend the stated time for payment of interest on any debt security;

reduce the principal amount of, or extend the stated maturity of, any debt security;

make any change that adversely affects the conversion rights, if any, of any debt security;

make any debt security payable in money other than that stated in such debt security;

impair the right of any holder to receive payment of principal (and premium, if any) and interest on, or any Additional Amounts payable with respect to, such holder's debt security on or after the due dates thereof or to institute suit for the enforcement of any payment on or with respect to such holder's debt security; or

modify the foregoing amendment provisions or the provisions relating to waivers of past defaults, except to increase the percentage of the principal amount of the debt securities whose holders are required to consent to an amendment or waiver, or to provide that certain other provisions of the applicable Indenture may not be modified or waived without the consent of the holder of each outstanding debt security affected thereby.

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Table of Contents

The holders of not less than a majority in principal amount of any series of debt securities outstanding under either Indenture have the right to waive our compliance with certain covenants in the applicable Indenture with respect to that series of debt securities.

Modifications and amendments of each Indenture may be made by us and the applicable trustee without the consent of any holder of debt securities issued thereunder to:

cure any ambiguity, omission, defect or inconsistency contained in the Indenture;

provide for the assumption by a successor corporation, partnership, trust or limited liability company of our obligations under the Indenture;

provide for uncertificated debt securities in addition to or in place of certificated debt securities (provided that the uncertificated debt securities are issued in registered form for purposes of Section 163(f) of the Internal Revenue Code, or in a manner such that the uncertificated debt securities are described in Section 163(f)(2)(B) of the Internal Revenue Code);

add guarantees with respect to the debt securities;

secure the debt securities;

add to or modify our covenants or the Events of Default for the benefit of the holders of the debt securities, or to surrender any right or power conferred upon us;

to evidence and provide for the acceptance of appointment of a successor trustee with respect to the debt securities of one or more series and to add to or change any of the provisions of an Indenture as necessary to provide for or facilitate the administration of the trusts under an Indenture by more than one trustee;

to supplement any of the provisions of an Indenture to the extent necessary to permit or facilitate the defeasance and discharge of any series of debt securities if such action does not adversely affect the interests of the holders of the debt securities of such series in any material respect;

comply with any requirement of the SEC to effect the qualification of the Indenture under the Trust Indenture Act (or any similar federal statute later enacted); or

make any change that does not materially and adversely affect the rights of the holders of the debt securities.

The consent of the holders is not necessary under the Indenture to approve the particular form of any proposed amendment. It is sufficient if such consent approves the substance of the proposed amendment.

Each Indenture provides that in determining whether the holders of the requisite principal amount of outstanding debt securities of a series have given any request, demand, authorization, direction, notice, consent or waiver thereunder or whether a quorum is present at a meeting of holders of debt securities, (1) the principal amount of an original issue discount security that will be deemed to be outstanding will be the amount of the principal thereof that would be (or shall have been declared to be) due and payable as of the date of such determination upon declaration of acceleration of the maturity thereof, (2) the principal amount of a debt security denominated in a foreign currency or currencies that will be deemed outstanding will be the U.S. dollar equivalent, determined on the issue date for such debt security, of the principal amount (or, in the case of an original issue discount security, the U.S. dollar equivalent on the issue date of such debt security of the amount determined as provided in clause (1) above), (3) the principal amount of an indexed security that will be deemed outstanding will be the principal face amount of such indexed security on the issue date, unless otherwise provided with respect to such indexed security pursuant to the applicable

Indenture, and

Table of Contents

(4) debt securities owned by us or any other obligor upon the debt securities or any affiliate of us or of such other obligor will be disregarded.

Each Indenture contains provisions for convening meetings of the holders of debt securities of a series. A meeting may be called by the trustee, by us, pursuant to a resolution adopted by our board of directors, or by the holders of not less than 10% in principal amount of the outstanding debt securities of such series, in any such case upon satisfaction of any conditions and upon notice given as provided in the applicable Indenture. Except for any consent that must be given by the holder of each debt security affected by certain modifications and amendments of the applicable Indenture, any resolution presented at a meeting or adjourned meeting duly reconvened at which a quorum is present may be adopted by the affirmative vote of the holders of a majority in principal amount of the outstanding debt securities of that series. Notwithstanding the foregoing, except as referred to above, any resolution with respect to any request, demand, authorization, direction, notice, consent, waiver or other action that may be made, given or taken by the holders of a specified percentage, which is less than a majority, in principal amount of the outstanding debt securities of a series may be adopted at a meeting or adjourned meeting duly reconvened at which a quorum is present by the affirmative vote of the holders of such specified percentage in principal amount of the outstanding debt securities of that series. Any resolution passed or decision taken at any meeting of holders of debt securities of any series duly held in accordance with the Indenture will be binding on all holders of debt securities of that series. The quorum at any meeting called to adopt a resolution, and at any reconvened meeting, will be persons holding or representing a majority in principal amount of the outstanding debt securities of a series, except that if any action is to be taken at such meeting with respect to a consent or waiver which may be given by the holders of not less than a specified percentage in principal amount of the outstanding debt securities of a series, the persons holding or representing such specified percentage in principal amount of the outstanding debt securities of such series will constitute a quorum.

Notwithstanding the provisions described above, if any action is to be taken at a meeting of holders of debt securities of any series with respect to any request, demand, authorization, direction, notice, consent, waiver or other action that the applicable Indenture expressly provides may be made, given or taken by the holders of a specified percentage in principal amount of all outstanding debt securities affected thereby, or of the holders of such series and one or more additional series, (1) there shall be no minimum quorum requirement for such meeting and (2) the holders of the principal amount of the outstanding debt securities of such series that vote in favor of such request, demand, authorization, direction, notice, consent, waiver or other action shall be taken into account in determining whether such request, demand, authorization, direction, notice, consent, waiver or other action has been made, given or taken under the applicable Indenture.

Satisfaction and Discharge

The Indenture provides that, upon our request, the Indenture will cease to be of further effect with respect to any series of debt securities specified in such request (except as to surviving rights of registration of transfer or exchange of debt securities or right to receive additional amounts, as expressly provided for in the Indenture) as to all debt securities of such series when:

either:

all such debt securities theretofore authenticated and delivered (except lost, stolen or destroyed debt securities that have been replaced or paid and securities whose payment has previously been deposited or segregated in trust and thereafter repaid or discharged) have been delivered to the Trustee for cancellation; or

all such debt securities not theretofore delivered to the Trustee for cancellation have become due and payable, will become due and payable at their stated maturity within one

Table of Contents

year or are to be called for redemption within one year under arrangements for the purpose of giving notice of the redemption by the Trustee and we have deposited or caused to be deposited with the Trustee funds in an amount sufficient to pay and discharge the entire indebtedness on such debt securities not theretofore delivered to the Trustee for cancellation, for unpaid principal and premium (if any) and interest to maturity;

we have paid all other sums payable by us under the Indenture with respect to such series; and

we have delivered to the Trustee an officers' certificate and an opinion of counsel each stating that all conditions precedent under the Indenture to the satisfaction and discharge of the Indenture with respect to such series have been complied with.

Defeasance and Covenant Defeasance

Each Indenture provides that, if the provisions of the relevant article of such Indenture are made applicable to the debt securities of (or within) any series pursuant to such Indenture, we may elect either (1) to effect a "defeasance," in which case we will be discharged from any and all obligations with respect to such debt securities (except for the obligation to pay Additional Amounts, if any, and the obligations to register the transfer or exchange of such debt securities, to replace temporary or mutilated, destroyed, lost or stolen debt securities, to maintain an office or agency in respect of such debt securities and to hold moneys for payment in trust), or (2) to effect a "covenant defeasance," in which case we will be released from our obligations with respect to the covenants described under " Certain Covenants" or, if provided pursuant to such Indenture, our obligations with respect to any other covenant, and any omission to comply with such obligations will not constitute a default or an Event of Default with respect to such debt securities. Such defeasance or covenant defeasance shall be effected upon the irrevocable deposit by us with the applicable trustee, in trust, of an amount, in such currency or currencies in which such debt securities are payable at their stated maturity, or Government Obligations (as described below), or both, applicable to such debt securities which through the scheduled payment of principal and interest in accordance with their terms will provide money in an amount sufficient to pay the principal of (and premium, if any) and interest on such debt securities, and any mandatory sinking fund or analogous payments thereon, on the scheduled due dates therefor.

Such a trust may be established only if, among other things, we have delivered to the applicable trustee an opinion of counsel (as specified in the applicable Indenture) to the effect that the holders of such debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such defeasance or covenant defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such defeasance or covenant defeasance had not occurred.

Each Indenture defines "Government Obligations" to mean securities which are (1) direct obligations of the United States of America or any government or governments which issued the foreign currency or currencies in which the debt securities of a particular series are payable, for the payment of which its full faith and credit is pledged, or (2) obligations of a person controlled or supervised by and acting as an agency or instrumentality of the United States of America or any such other government, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America or such other government, which, in either case, are not callable or redeemable at the option of the issuer thereof. Government Obligations will also include a depository receipt issued by a bank or trust company as custodian with respect to any such Government Obligation or a specific payment of interest on or principal of any such Government Obligation held by such custodian for the account of the holder of a depository receipt, except that (other than as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the Government

Table of Contents

Obligation or the specific payment of interest on or principal of the Government Obligation evidenced by such depository receipt.

Unless otherwise provided in the applicable supplemental indenture relating to any series of debt securities, if after we have deposited funds or Government Obligations to effect defeasance or covenant defeasance with respect to debt securities of any series, (1) the holder of a debt security of such series is entitled to, and does, elect pursuant to the applicable Indenture or the terms of such debt security to receive payment in a currency other than that in which such deposit has been made in respect of such debt security, or (2) a Conversion Event (as described below) occurs in respect of the currency in which such deposit has been made, the indebtedness represented by such debt security and any coupons appertaining thereto shall be deemed to have been, and will be, fully discharged and satisfied through the payment of the principal of (and premium, if any) and interest, if any, on such debt security as they become due out of the proceeds yielded by converting the amount or other property so deposited in respect of such debt security into the currency in which such debt security becomes payable as a result of such election or Conversion Event based on the applicable market exchange rate. Each Indenture defines "Conversion Event" to mean the cessation of use of (a) a foreign currency other than the Euro both by the government of the country which issued such currency and for the settlement of transactions by a central bank or other public institutions of or within the international banking community, (b) the Euro both within the European Monetary System and for the settlement of transactions by public institutions of or within the European Community or (c) any currency for the purposes for which it was established. If we effect a covenant defeasance with respect to any debt securities and such debt securities are declared due and payable because of the occurrence of an Event of Default, the amount in such currency in which such debt securities are payable, and Government Obligations on deposit with the applicable trustee, will be sufficient to pay amounts due on such debt securities at the time of their stated maturity but may not be sufficient to pay amounts due on such debt securities at the time of the acceleration resulting from such Event of Default. We, however, would remain liable to make payment of such amounts due at the time of acceleration.

The applicable prospectus supplement may further describe the provisions, if any, permitting such defeasance or covenant defeasance, including any modifications to the provisions described above, with respect to the debt securities of or within a particular series.

Senior Debt Securities

Payment of the principal of and premium, if any, and interest on debt securities we issue under the Senior Debt Securities Indenture will rank equally with all of our unsecured and unsubordinated debt.

Subordination of Subordinated Debt Securities

To the extent provided in the Subordinated Debt Securities Indenture and any supplemental indenture, and as described in the prospectus supplement describing the applicable series of subordinated debt securities, the payment of the principal of and premium, if any, and interest on any subordinated debt securities, including amounts payable on any redemption or repurchase, will be subordinated in right of payment and junior to senior indebtedness, which is defined below. If there is a distribution to our creditors in a liquidation or dissolution of us, or in a bankruptcy, reorganization, insolvency, receivership or similar proceeding relating to us, the holders of senior indebtedness will first be entitled to receive payment in full of all amounts due on the senior indebtedness (or provision shall be made for such payment in cash) before any payments may be made on the subordinated debt securities. Because of this subordination, our general creditors may recover more, ratably, than holders of subordinated debt securities in the event of a distribution of assets upon insolvency.

The supplemental indenture will set forth the terms and conditions under which, if any, we will not be permitted to pay principal, premium, if any, or interest on the related subordinated debt securities

Table of Contents

upon the occurrence of an event of default or other circumstances arising under or with respect to senior indebtedness.

The Indentures will place no limitation on the amount of senior indebtedness that we may incur. We expect to incur from time to time additional indebtedness constituting senior indebtedness, which may include indebtedness that is senior to the subordinated debt securities but subordinate to our other obligations.

The Subordinated Debt Securities Indenture defines "senior indebtedness" as the principal of, and premium, if any, interest, including any interest accruing after the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowed as a claim in the proceeding, and rent payable on or in connection with, and all fees, costs, expenses and other amounts accrued or due on or in connection with, Indebtedness of us, whether secured or unsecured, absolute or contingent, due or to become due, outstanding on the date of the indenture or thereafter created, incurred, assumed, guaranteed or in effect guaranteed by us, including all deferrals, renewals, extensions or refundings of, or amendments, modifications or supplements to, the foregoing. Senior indebtedness does not include:

indebtedness that expressly provides that such indebtedness (1) shall not be senior in right of payment to the subordinated debt securities, (2) shall be equal or junior in right of payment to the subordinated debt securities, or (3) shall be junior in right of payment to any of our other indebtedness;

any indebtedness of us to any of our majority-owned subsidiaries, other than indebtedness to our majority-owned subsidiaries arising by reason of guarantees by us of indebtedness of such subsidiary to a person that is not our subsidiary; and

indebtedness for trade payables or the deferred purchase price of assets or services incurred in the ordinary course of business.

DESCRIPTION OF PREFERRED STOCK

The following, together with the additional information we include in the applicable prospectus supplement, describes the preferred stock that we may offer under this prospectus. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and investors' rights agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part. We will fix the rights, preferences, privileges and restrictions of the preferred stock of each series in the certificate of designation for that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, a certificate of designation that describes the terms of any series of preferred stock being offered before the issuance of such series of preferred stock.

General

Under our amended and restated certificate of incorporation our board of directors has the authority, subject to limitations prescribed by Delaware law, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations and restrictions. Our board of directors also can increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the

Table of Contents

voting power or other rights of the holders of the common 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 control of our company and may adversely affect the market price of our common stock and the voting and other rights of the holders of common stock.

As of the date of this prospectus, no shares of preferred stock are issued or outstanding. The particular terms of any series of preferred stock being offered by us under this prospectus will be described in the applicable prospectus supplement relating to that series of preferred stock. Those terms may include:

- the title and number of shares of the preferred stock being offered;
- the dividend rate (or method of calculation) and the dates on which dividends will be paid;
- whether dividends will be cumulative and, if so, the date from which dividends will begin to accumulate;
- the voting rights, if any, of the preferred stock;
- any conversion provisions of the preferred stock;
- any redemption, repurchase or sinking fund provisions of the preferred stock;
- the liquidation preference per share of the preferred stock; and
- any other relative powers, preferences, rights, qualifications, limitations or restrictions of the preferred stock.

The preferred stock will, when issued, be fully paid and non-assessable.

The description of preferred stock above and the description of the terms of a particular series of preferred stock in the applicable prospectus supplement are not complete. You should refer to the applicable certificate of designations for complete information. The prospectus supplement will also contain a description of U.S. federal income tax consequences relating to the preferred stock, if material.

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

Other. Our issuance of preferred stock may have the effect of delaying or preventing a change in control. Our issuance of preferred stock could decrease the amount of earnings and assets available for distribution to the holders of common stock or other preferred stock or could adversely affect the rights and powers, including voting rights, of the holders of common stock or other preferred stock. The issuance of preferred stock could have the effect of decreasing the market price of our common stock.

Table of Contents

DESCRIPTION OF WARRANTS

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

As of the date of this prospectus, there are no outstanding warrants.

We may issue warrants for the purchase of common stock, debt securities, preferred stock or any combination of the foregoing securities. Warrants may be issued independently or together with our securities offered by any prospectus supplement. Series of warrants may be issued under a separate warrant agreement. The applicable prospectus supplement will describe the terms of the warrants offered, including but not limited to the following:

the number of warrants offered;

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

the currency or currencies in which the prices of the warrants may be payable;

securities for which the warrants are exercisable;

whether the warrants will be issued with any other securities and, if so, the amount and terms of these securities;

the amount of securities purchasable upon exercise of each warrant and the price at which and the currency or currencies in which the securities may be purchased upon such exercise, and the events or conditions under which the amount of securities may be subject to adjustment;

the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;

the circumstances, if any, which will cause the warrants to be deemed to be automatically exercised;

the minimum or maximum amount of such warrants, if any, that may be exercised at any one time;

any material risk factors relating to such warrants; and

any other material terms of such warrants.

Prior to the exercise of any warrants, holders of such warrants will not have any rights of holders of the securities purchasable upon such exercise, including the right to receive payments of dividends, or the right to vote such underlying securities.

Prospective purchasers of warrants should be aware that special United States federal income tax, accounting and other considerations may be applicable to instruments such as warrants. The applicable prospectus supplement will describe such considerations, to the extent they are material, as they apply generally to purchasers of such warrants.

DESCRIPTION OF UNITS

The following, together with the additional information we may include in the applicable prospectus supplement, 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

Table of Contents

offer, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement.

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.

Any applicable prospectus supplement will describe:

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;

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.

SELLING SECURITYHOLDERS

Selling securityholders are persons or entities that, directly or indirectly, have acquired or will from time to time acquire from us, securities in various private transactions. Such selling securityholders may be parties to registration rights agreements with us, or we otherwise may have agreed or will agree to register their securities for resale. The initial purchasers of our securities, as well as their transferees, pledges, donees or successors, all of whom we refer to as "selling securityholders," may from time to time offer and sell the securities pursuant to this prospectus and any applicable prospectus supplement.

The applicable prospectus supplement will set forth the name of each of the selling securityholders and the number of shares of our common stock beneficially owned by such selling securityholders that are covered by such prospectus supplement.

LEGAL MATTERS

The legal validity of the securities offered by this prospectus will be passed upon for us by Hogan Lovells US LLP, Baltimore, Maryland.

EXPERTS

Ernst & Young 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, 2015, and the effectiveness of our internal control over financial reporting as of December 31, 2015, as set forth in their reports dated February 26, 2016, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

1,750,000 Shares

TESARO, Inc.

Common Stock

\$135.00 per share

PROSPECTUS SUPPLEMENT

The date of this prospectus supplement is November 15, 2016.

Citigroup

Leerink Partners

Credit Suisse

Wells Fargo Securities

Baird

FBR

Guggenheim Securities

Raymond James

SunTrust Robinson Humphrey

Wedbush PacGrow
