Theravance Biopharma, Inc. Form 424B5 October 26, 2016

Use these links to rapidly review the document TABLE OF CONTENTS

Filed Pursuant to Rule 424(b)(5) Registration Statement No. 333-214257

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these ordinary shares has become effective under the Securities Act of 1933, as amended. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and we are not soliciting offers to buy these securities, in any state or other jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED OCTOBER 26, 2016

PRELIMINARY PROSPECTUS SUPPLEMENT (To Prospectus dated October 26, 2016)

\$100,000,000

Theravance Biopharma, Inc.

Ordinary Shares

We are offering \$100,000,000 of our ordinary shares. Our ordinary shares are listed on The NASDAQ Global Market under the symbol "TBPH." The last reported sale price of our ordinary shares on October 25, 2016 was \$33.01 per share. Assuming a public offering price of \$33.01 per share, we would issue 3,029,385 shares.

The underwriters have a 30-day option to purchase up to \$15,000,000 of additional shares from us.

Investing in our Ordinary Shares involves risks. See "Risk Factors" beginning on page S-10.

	Price to Public	Underwriting Discounts and Commissions(1)	Proceeds, before expenses, to Theravance Biopharma, Inc.	
Per Share	\$	\$	\$	
Total	\$	\$	\$	

(1) We refer you to "Underwriting" beginning on page S-57 of this prospectus supplement for further information regarding underwriter compensation.

The underwriters expect to deliver the ordinary shares against payment on or about

, 2016.

Concurrently with this offering of the ordinary shares, we are offering our % Convertible Senior Notes due 2023 (the "Notes") in a separate underwritten public offering, in an aggregate principal amount of \$150.0 million (or \$172.5 million if the underwriters in that offering exercise their option to purchase additional Notes in full). Neither offering is contingent on the completion of the other offering.

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

Joint Book-Running Managers

Leerink Partners **Evercore ISI**

Piper Jaffray

Lead Manager

Guggenheim Securities

Co-Managers

Cantor Fitzgerald & Co.

Needham & Company

The date of this prospectus supplement is October , 2016.

TABLE OF CONTENTS

Prospectus Supplement

	Page
About this Prospectus Supplement and Accompanying Prospectus	<u>S-i</u>
Forward-Looking Statements	<u>S-i</u>
Where You Can Find More Information	<u>S-ii</u>
<u>Incorporation by Reference</u>	<u>S-ii</u>
<u>Summary</u>	<u>S-1</u>
Risk Factors	<u>S-10</u>
<u>Use of Proceeds</u>	<u>S-45</u>
Price Range of Our Ordinary Shares	<u>S-45</u>
<u>Dividend Policy</u>	<u>S-45</u>
<u>Capitalization</u>	<u>S-46</u>
Concurrent Notes Offering	<u>S-48</u>
Material U.S. Federal Income Tax Considerations for U.S. Holders of Ordinary Shares	<u>S-49</u>
Material Irish Tax Considerations for Holders of Ordinary Shares	<u>S-54</u>
Material Cayman Islands Tax Considerations	<u>S-56</u>
<u>Underwriting</u>	<u>S-57</u>
<u>Legal Matters</u>	<u>S-63</u>
<u>Experts</u>	<u>S-63</u>
Prospectus	
About This Prospectus	
	<u>1</u>
Risk Factors	<u>1</u>
<u>Theravance</u>	<u>1</u>
Forward-Looking Statements	<u>1</u>
<u>Use of Proceeds</u>	<u>2</u>
Ratio of Earnings to Fixed Charges	<u>2</u>
Description of Debt Securities	<u>2</u>
Description of Share Capital	<u>10</u>
Description of Purchase Contracts and Purchase Units	<u>21</u>
Description of Warrants	<u>22</u>
Forms of Securities	<u>23</u>
Selling Securityholders	<u>25</u>
<u>Plan of Distribution</u>	<u>25</u>
<u>Legal Matters</u>	<u>26</u>
<u>Experts</u>	1 1 1 2 2 2 10 21 22 23 25 25 26 26 27
Where You Can Find More Information	<u>27</u>
	•

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT AND ACCOMPANYING PROSPECTUS

This document is in two parts. The first part is the prospectus supplement, which describes the specific 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 supplement and the accompanying prospectus. The second part, the accompanying prospectus, gives more general information about securities we may offer from time to time, some of which does not apply to this offering. To the extent the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus, the information in this prospectus supplement controls.

We have not, and the underwriters have not, authorized anyone to provide you with different information than that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus or any free writing prospectus to which we have referred you. We and they take no responsibility for, and can provide no assurances as to the reliability of, any other information that others may give you. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus supplement, the accompanying prospectus or any free writing prospectus we may authorize to be delivered to you, including any information incorporated by reference, is accurate as of any date other than their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read the prospectus supplement, the accompany prospectus and any related free writing prospectus when making your investment decision. You should also read and consider the information in the documents we have referred you to in the sections of the prospectus supplement and the prospectus entitled "Where You Can Find More Information" and "Incorporation by Reference."

This prospectus supplement and the accompanying prospectus contain summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Some of the documents referred to herein have been filed as exhibits to the registration statement of which this prospectus supplement and accompanying prospectus are a part, while others are incorporated by reference from our previously filed periodic reports or the description of our ordinary shares contained in the Registration Statement No. 001-36033 on Form 10, which became effective on May 14, 2014, including any amendment or report filed for the purpose of updating such description, and amendments thereto, including their exhibits, and you may obtain copies of these documents as described below under "Where You Can Find More Information" and "Incorporation by Reference."

We have not taken any action to permit an offering of our ordinary shares outside the United States or to permit the possession or distribution of this prospectus supplement or the accompanying prospectus outside the United States. Persons outside the United States who come into possession of this prospectus supplement and/or the accompanying prospectus must inform themselves about and observe any restrictions relating to the offering of our ordinary shares and the distribution of this prospectus supplement and the accompanying prospectus outside of the United States.

In this prospectus supplement and the accompanying prospectus, unless otherwise indicated or the context otherwise requires, the terms "Theravance Biopharma," "company," "we," "our," and "us" refer to Theravance Biopharma, Inc. and its consolidated subsidiaries.

FORWARD-LOOKING STATEMENTS

This prospectus supplement contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Such forward-looking statements

Table of Contents

involve substantial risks, uncertainties and assumptions. All statements in this prospectus supplement, other than statements of historical facts, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, anticipated operating loss (excluding share-based compensation), prospects, plans, intentions, expectations, objectives and this offering (including the anticipated use of the net proceeds therefrom) could be forward-looking statements. The words "aim," "anticipates," "believes," "contemplates," "continue," "could," "designed," "developed," "drive," "estimates," "expects," "goal," "intends," "may," "mission," "opportunities," "plans," "potential," "predicts," "projects," "pursuing," "represents," "seeks," "should," "suggest," "target," "will," "would" and similar expressions (including the negatives thereof) are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions, expectations or objectives disclosed in our forward-looking statements and the assumptions underlying our forward-looking statements may prove incorrect. Therefore, you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions, expectations and objectives disclosed in the forward-looking statements that we make.

Factors that we believe could cause actual results or events to differ materially from our forward-looking statements include, but are not limited to, those discussed below, in the prospectus supplement, the accompanying prospectus and in the documents incorporated herein and therein by reference, in the sections "Summary" and "Risk Factors" in this prospectus supplement and in the sections "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" in our Annual Report on Form 10-K for the year ended December 31, 2015, in the section "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 and elsewhere in this prospectus supplement, the accompanying prospectus and in the documents incorporated herein and therein by reference. Our forward-looking statements in this prospectus supplement are based on current expectations and we do not assume any obligation to update any forward-looking statements.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (the "SEC"). We have filed with the SEC a registration statement on Form S-3 under the Securities Act using an automatic shelf registration process. Under the shelf registration process, we may from time to time offer and sell any combination of the securities described in the accompanying prospectus. This prospectus supplement and the accompanying prospectus do not contain all of the information in the registration statement, parts of which we have omitted, as allowed under the rules and regulations of the SEC. You should refer to the registration statement for further information with respect to us and our ordinary shares. Statements contained in this prospectus supplement and the accompanying prospectus as to the contents of any contract or other document are not necessarily complete and, in each instance, we refer you to the copy of each contract or document filed as an exhibit to the registration statement. Copies of the registration statement and the other documents we file with the SEC, including exhibits, may be inspected without charge at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549, and you may obtain copies from the Public Reference Room upon payment of the fees prescribed by the SEC. Our SEC filings are also available to the public over the Internet at the SEC's website at www.sec.gov.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede this information.

S-ii

Table of Contents

We incorporate by reference the documents listed below (except the information contained in such documents to the extent "furnished" and not "filed") and any future filings we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (except the information contained in such documents to the extent "furnished" and not "filed"):

our annual report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 11, 2016;

the information in our Definitive Proxy Statement on Schedule 14A, filed on March 25, 2016, to the extent incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2015;

our quarterly reports on Form 10-Q for the quarterly periods ended March 31, 2016 and June 30, 2016, filed with the SEC on May 10, 2016 and August 9, 2016, respectively;

our current reports on Form 8-K, filed with the SEC on January 11, 2016 (but only with respect to Item 2.02), February 25, 2016 (but only with respect to those portions of Item 8.01 that were "filed" for the purposes of Section 18 of the Exchange Act), March 14, 2016, May 2, 2016 (but only with respect to Item 1.01 and Exhibits 1.1, 5.1 and 23.1), May 4, 2016, May 6, 2016, June 14, 2016 (at 16:38:37), October 4, 2016, October 20, 2016 (but only with respect to Item 8.01 and Exhibit 99.1) and October 25, 2016; and

the description of our ordinary shares contained in our Registration Statement No. 001-36033 on Form 10, which became effective on May 14, 2014, including any amendment or report filed for the purpose of updating such description.

You may request, and we will provide you with, a copy of these filings, at no cost, by calling us at (650) 808-6000 or by writing to us at the following address:

Theravance Biopharma, Inc. c/o Theravance Biopharma US, Inc. 901 Gateway Boulevard South San Francisco, CA 94080 Attn: Investor Relations

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

To the extent that any information contained in any Current Report on Form 8-K, or any exhibit thereto, was furnished to, rather than filed with, the SEC, such information or exhibit is specifically not incorporated by reference in this prospectus supplement or the accompanying prospectus.

S-iii

Table of Contents

SUMMARY

You should read the following summary together with the entire prospectus supplement and accompanying prospectus and the documents incorporated by reference herein and therein, including our consolidated financial statements and related notes. You should carefully consider, among other things, the matters discussed in the section entitled "Risk Factors" in this prospectus supplement.

Theravance Biopharma, Inc.

Overview

We are a diversified biopharmaceutical company with the core purpose of creating medicines that make a difference in the lives of patients suffering from serious illness.

Our pipeline of internally discovered product candidates includes potential best-in-class medicines to address the unmet needs of patients being treated for serious conditions primarily in the acute care setting. VIBATIV® (telavancin), our first commercial product, is a once-daily dual-mechanism antibiotic approved in the U.S., Europe and certain other countries for certain difficult-to-treat infections. Revefenacin (TD-4208) is a long-acting muscarinic antagonist ("LAMA") being developed as a potential once-daily, nebulized treatment for chronic obstructive pulmonary disease ("COPD"). Our neprilysin ("NEP") inhibitor program is designed to develop selective NEP inhibitors for the treatment of a range of major cardiovascular and renal diseases, including acute and chronic heart failure, hypertension and chronic kidney diseases such as diabetic nephropathy. Our research efforts are focused in the areas of inflammation and immunology, with the goal of designing medicines that provide targeted drug delivery to tissues in the lung and gastrointestinal tract in order to maximize patient benefit and minimize risk. The first program to emerge from this research is designed to develop GI-targeted pan-Janus kinases ("JAK") inhibitors for the treatment of a range of inflammatory intestinal diseases.

In addition, we have an economic interest in future payments that may be made by Glaxo Group Limited or one of its affiliates ("GSK") pursuant to its agreements with Innoviva, Inc. ("Innoviva") (known as Theravance, Inc. prior to January 7, 2016) relating to certain drug development programs, including the combination of fluticasone furoate, umeclidinium, and vilanterol (the "Closed Triple"), currently in development for the treatment of COPD and asthma.

On June 1, 2014, Innoviva separated its late-stage respiratory assets partnered with GSK from its biopharmaceutical operations by transferring its discovery, development and commercialization operations (the "Biopharmaceutical Business") and contributing \$393.0 million of cash, cash equivalents and marketable securities into its then wholly-owned subsidiary, Theravance Biopharma. On June 2, 2014, Innoviva made a pro rata dividend distribution to its stockholders of record on May 15, 2014 of one ordinary share of Theravance Biopharma for every three and one half shares of Innoviva common stock outstanding on the record date (the "Spin-Off"). The Spin-Off resulted in Theravance Biopharma operating as an independent, publicly-traded company. Prior to June 2, 2014, Innoviva operated the Biopharmaceutical Business.

Our Programs

The table below summarizes the status of our approved product and our most advanced product candidates for internal development or co-development. Our research and development activities are concentrated primarily on four therapeutic areas infectious disease, respiratory, gastrointestinal disease and cardiovascular and renal disease and our commercial infrastructure is focused primarily on the acute care setting. The table also includes the status of the respiratory programs in which we have an economic interest and are being developed by GSK pursuant to agreements between Innoviva and GSK ("GSK-Partnered Respiratory Programs"). These programs consist of the Closed Triple

Table of Contents

program, the Inhaled Bifunctional Muscarinic Antagonist-Beta2 Agonist ("MABA") program and other future products that may be combined with the Closed Triple or MABA. We have an economic interest in these programs through our interest in Theravance Respiratory Company, LLC ("TRC"), a limited liability company managed by Innoviva. The status of these programs is described solely from publicly available information.

Table of Contents	Edgar Filing: Theravance Biopharma, Inc Form 424B5					

Financial Update

Estimates for the Three Months Ended September 30, 2016

We are currently finalizing our financial results for the three months ended September 30, 2016. The financial results discussed below for the three months ended September 30, 2016 are preliminary and subject to completion of financial and operating closing procedures. The results below are not a comprehensive statement of our financial results or operating metrics for this period and our actual results and metrics may differ materially from these amounts following the completion of our financial and operating closing procedures, or as a result of other adjustments or developments that may arise before the results for this period are finalized. In addition, even if our actual results and metrics are consistent with these preliminary results, those results or developments may not be indicative of results or developments in subsequent periods.

We expect to report that our cash, cash equivalents and marketable securities were approximately \$289.3 million and our receivables from collaborative arrangements were approximately \$22.7 million as

Table of Contents

of September 30, 2016. As of December 31, 2015, our cash, cash equivalents and marketable securities totaled \$215.3 million and our receivables from collaborative arrangements were \$35.2 million.

We expect to report that our revenue from net product sales, which consists entirely of sales of VIBATIV® in the U.S., for the three months ended September 30, 2016 were between \$3.8 and \$4.0 million.

Forecast for Year Ended December 31, 2016

We anticipate our operating loss, excluding share-based compensation, will be approximately \$140 million for the full year of 2016. Our actual operating loss, excluding share-based compensation, could be above or below our forecast as a result of a variety of factors, including the rate of enrollment in clinical studies, spending rates to prepare for planned clinical studies and fourth quarter revenue.

Recent Developments

Revefenacin (TD-4208)

In October 2016 we announced positive results from two replicate Phase 3 efficacy studies of revefenacin (TD-4208), an investigational LAMA and the first once-daily, nebulized bronchodilator in late-stage development for the treatment of COPD. We and Mylan, our development and commercialization partner for revefenacin, reported top-line results across more than 1,250 moderate to very severe COPD patients confirming that both Phase 3 studies met their primary efficacy endpoints, demonstrating statistically significant improvements over placebo in trough forced expiratory volume in one second (FEV1) after 12 weeks of dosing for each of the revefenacin doses studied (88 mcg once daily and 175 mcg once daily). The studies also demonstrated that the 88 mcg and 175 mcg doses of revefenacin were generally well-tolerated, with comparable rates of adverse events and serious adverse events across all treatment groups (active and placebo). In addition to the two efficacy studies, the revefenacin Phase 3 program includes an ongoing twelve-month, open-label, active comparator safety study in more than 1,050 patients, which is expected to be completed in 2017. Together, the three studies enrolled approximately 2,300 patients. Should outcomes from the safety study be supportive, we expect to file a new drug application for revefenacin with the United States Food and Drug Administration ("FDA") by the end of 2017.

Neprilysin (NEP) Inhibitor Program (TD-0714 and TD-1439)

In October 2016, we completed a Phase 1 randomized, double-blind, placebo-controlled, multiple ascending dose ("MAD") study in healthy volunteers of our most advanced NEP inhibitor compound, TD-0714. The findings from the MAD study were consistent with the Phase 1 randomized, double-blind, placebo-controlled, single ascending dose ("SAD") study in healthy volunteers we completed in March 2016, demonstrating sustained target engagement, low levels of renal elimination, and a favorable safety and tolerability profile. Findings from the studies support clinical progression of TD-0714, which we plan to assess in an intravenous formulation in a Phase 1 study early-2017.

In September 2016, we progressed a second NEP inhibitor compound, TD-1439, which is structurally distinct from TD-0714, into Phase 1 randomized, double-blind, placebo-controlled, SAD and MAD studies in healthy volunteers. We expect to complete the Phase 1 SAD and MAD studies of TD-1439 in the first half of 2017.

Intestinally Restricted Pan-Janus Kinase (JAK) Inhibitor Program (TD-1473 and TD-3504)

In October 2016, we announced dosing of the first patient in a Phase 1b clinical study of TD-1473, an internally-discovered JAK inhibitor that has demonstrated a high affinity for each of the JAK family of enzymes, in patients with moderate to severe ulcerative colitis. The multi-center, randomized,

Table of Contents

double-blind, multi-dose, placebo-controlled study is designed to enroll 40 randomized patients to receive one of three doses of TD-1473 or placebo administered for 28 days in sequential fashion. The primary objectives of the study will include evaluation of the safety and tolerability of TD-1473 administered for 28 days, as well as assessment of the compound's plasma exposure following administration. A key secondary objective of the study will be the evaluation of the effect of TD-1473 on levels of a range of key ulcerative colitis biomarkers, including C-reactive protein and fecal calprotectin. Additionally, investigators are expected to evaluate a number of exploratory objectives, including changes in partial Mayo score and improvement in disease activity through endoscopic and histologic assessments. We expect data from the Phase 1b study to be available in mid-2017. Also in October 2016, we announced that we had successfully completed the TD-1473 13-week toxicology study, clearing the compound to progress to longer term clinical studies.

In September 2016, we announced plans to progress a second compound, TD-3504, from our JAK inhibitor program. TD-3504 is an innovative prodrug of tofacitinib, an investigational JAK inhibitor in development for ulcerative colitis. TD-3504 is chemically distinct from TD-1473 and is designed to release active tofacitinib into the intestinal tract. In preclinical studies, TD-3504 demonstrated rapid formation of tofacitinib in the intestinal tract, reduction in disease activity score comparable to tofacitinib, and low systemic exposure in contrast to tofacitinib. We plan to initiate a Phase 1b study of TD-3504 in ulcerative colitis patients in the first half of 2017.

Concurrent Offering

Concurrently with this offering of our ordinary shares, pursuant to a separate prospectus supplement and accompanying prospectus, we are offering \$150.0 million in aggregate principal amount of our Convertible Senior Notes due 2023 (the "Notes") in an underwritten public offering (or \$172.5 million in aggregate principal amount if the underwriters in that offering exercise their option to purchase additional Notes in full), which we refer to as the "concurrent notes offering." Unless the context requires, all information in this prospectus supplement assumes that the underwriters do not exercise their option to purchase additional Notes.

The closing of this offering of our ordinary shares is not conditioned upon the closing of the concurrent notes offering, and the closing of the concurrent notes offering is not conditioned upon the closing of this offering. We cannot assure you that either or both of the offerings will be completed. The foregoing description and other information regarding the concurrent notes offering is included herein solely for informational purposes.

This description and the other information in this prospectus supplement regarding the concurrent notes offering are included in this prospectus supplement solely for informational purposes. Nothing in this prospectus supplement should be construed as an offer to sell, or the solicitation of an offer to buy, the Notes in such offering.

Corporate Information

Theravance Biopharma was incorporated in the Cayman Islands in July 2013 under the name Theravance Biopharma, Inc. While the Company is incorporated under Cayman Island law, the Company became an Irish tax resident effective July 1, 2015. Our registered office address in the Cayman Islands is P.O. Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands and the principal office of our wholly-owned U.S. operating subsidiary Theravance Biopharma US, Inc. is 901 Gateway Boulevard, South San Francisco, California 94080.

Our internet address is www.theravance.com. Information contained on or accessible through our website does not constitute a part of this prospectus supplement or the accompanying prospectus.

Table of Contents

THE OFFERING

Ordinary shares offered by us Option to purchase additional

shares

Use of Proceeds

shares

Ordinary shares to be outstanding immediately after this offering

shares (shares if the underwriters exercise their option to purchase additional shares in full)

The net proceeds from this offering are estimated to be approximately \$93.6 million (or \$107.7 million if the underwriters exercise their option to purchase additional ordinary shares in full), after deducting underwriting

discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering, together with proceeds from the concurrent notes offering, for general corporate purposes, which may include, among other things, research activities, preclinical and clinical development of product candidates, manufacture of pre-clinical, clinical and commercial drug supplies, selling and marketing expenses, capital expenditures, working capital, general and administrative expenses and

acquisitions of technology or drug candidates. See "Use of Proceeds."

Concurrent Notes Offering

Concurrently with this offering of our ordinary shares, pursuant to a separate prospectus supplement and accompanying prospectus, we are offering \$150.0 million in aggregate principal amount of Notes (or \$172.5 million in aggregate principal amount of Notes if the underwriters in that offering exercise their option to purchase additional Notes in full) in an underwritten public offering. The closing of this offering of our ordinary shares is not conditioned upon the closing of the concurrent notes offering, and the closing of the concurrent notes offering is not conditioned upon the closing of this offering. We cannot assure you that either or both of

the offerings will be completed. See "Concurrent Convertible Senior Notes Offering."

Risk Factors You should carefully consider the information set forth in the section entitled "Risk Factors" beginning on

page S-10 of this prospectus supplement and all other information provided to you and incorporated by

reference into this prospectus supplement before deciding to invest in our ordinary shares.

Listing Our ordinary shares are quoted on The NASDAQ Global Market ("NASDAQ") under the symbol "TBPH." On

October 25, 2016, the closing sale price for the ordinary shares on the NASDAQ was \$33.01 per share.

S-6

13

Table of Contents

The number of ordinary shares that will be outstanding after this offering is based on 48,092,208 ordinary shares outstanding as of September 30, 2016, and excludes:

2,292,487 ordinary shares issuable upon the exercise of outstanding options to purchase our ordinary shares as of September 30, 2016 having a weighted-average exercise price of \$23.44 per share;

1,008,780 ordinary shares reserved for issuance pursuant to future awards under our 2013 Equity Incentive Award Plan, and any addendums thereto;

18,632 ordinary shares reserved for issuance pursuant to future awards under our 2014 New Employee Equity Incentive Plan;

1,156,334 ordinary shares reserved for issuance pursuant to future awards under our 2013 Employee Share Purchase Plan;

3,848,503 ordinary shares issuable upon vesting of outstanding restricted share units; and

Any ordinary shares issuable upon conversion of the Notes, assuming completion of the concurrent notes offering.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriters of their option to purchase additional shares.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following tables set forth a summary of our consolidated historical financial data as at and for the periods presented. The summary consolidated historical financial data set forth below includes the results of operations and balance sheet data for the six months ended, and as of, June 30, 2016 and 2015 and the years ended, and as of, December 31, 2015 and 2014. The summary financial data for the six months ended June 30, 2016 and 2015 have been derived from our unaudited consolidated condensed financial statements included in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, which is incorporated herein by reference. The summary consolidated historical financial data for each of the two years in the period ended December 31, 2015 have been derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2015, which is incorporated herein by reference. The unaudited consolidated condensed financial data have been prepared on a basis consistent with our audited consolidated financial statements and, in the opinion of management, reflect all adjustments, consisting of normal recurring adjustments, considered necessary for a fair presentation. The results of operations for the interim periods are not necessarily indicative of the results that may be expected for the full year or for any future period.

The information below should be read in conjunction with (i) our consolidated financial statements (and notes thereto) contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 and our unaudited consolidated condensed financial statements (and notes thereto) contained in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, and (ii) "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 in our Annual Report on Form 10-K for the year ended December 31, 2015 and Part I, Item 2 of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, each incorporated by reference herein

	Six Months						
		Ended June 30,		30,	Year Ended Decen		ember 31,
		2016		2015		2015	2014
		(In thousands, except per share data)					
Consolidated Statements of Operations Data							
Product sales	\$	8,670	\$	3,404	\$	9,408 \$	4,418
Revenue from collaborative arrangements		15,211		24,131		32,718	7,270
Total revenue		23,881		27,535		42,126	11,688
Costs and expenses:							
Cost of goods sold(1)		1,416		875		4,657	4,058
Research and development		67,748		66,396		129,165	168,522
Selling, general and administrative		43,857		43,293		90,203	71,647
Total costs and expenses(2)		113,021		110,564		224,025	244,227
•							
Loss from operations		(89,140)		(83,029)		(181.899)	(232,539)
Interest and other income		495		414		631	1,865
							,
Loss before income taxes		(88 645)		(82,615)		(181 268)	(230,674)
							. , ,
TO VISION FOR INCOME WARE		700		7,100		,,,,	0,20.
Nat loss	¢	(80 375)	Ф	(00.078)	¢	(182 210) \$	(237 038)
Net 1088	φ	(09,373)	φ	(90,076)	φ	(102,219) \$	(237,036)
Net loss per share:							
Basic and diluted net loss per share	\$	(2.16)	\$	(2.71)	\$	(5.34) \$	(7.46)
Loss before income taxes Provision for income taxes Net loss	\$	(88,645) 730 (89,375)		(82,615) 7,463 (90,078)	\$	(181,268) 951 (182,219) \$	(230,674) 6,364 (237,038)