

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-K**

(Mark One)

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2019  
OR  
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File No. 001-36033

**THERAVANCE BIOPHARMA, INC.**

(Exact name of registrant as specified in its charter)

**Cayman Islands**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**98-1226628**  
(I.R.S. Employer  
Identification No.)

**P.O. Box 309**  
**Ugland House, South Church Street**  
**George Town, Grand Cayman, Cayman Islands**  
(Address of Principal Executive Offices)

**KY1-1104**  
(Zip Code)

Registrant's telephone number, including area code: **650-808-6000**

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of Each Class	Trading Symbol	Name of Each Exchange On Which Registered
Ordinary Share \$0.00001 Par Value	TBPH	The NASDAQ Global Market

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT: **NONE**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large Accelerated Filer   
Non-accelerated Filer

Accelerated Filer   
Smaller reporting company   
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant based upon the closing price on the NASDAQ Global Market on June 30, 2019 was \$893,464,384.

On February 19, 2020, there were 62,520,148 of the registrant's ordinary shares outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Specified portions of the registrant's definitive Proxy Statement to be issued in conjunction with the registrant's 2020 Annual Meeting of Shareholders, which is expected to be filed not later than 120 days after the registrant's fiscal year ended December 31, 2019, are incorporated by reference into Part III of this Annual Report. Except as expressly incorporated by reference, the registrant's Proxy Statement shall not be deemed to be a part of this Annual Report on Form 10-K.

**THERAVANCE BIOPHARMA, INC.**  
**2019 Form 10-K Annual Report**  
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### Special Note regarding Forward-Looking Statements

*This Annual Report on Form 10-K 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 involve risks, uncertainties and assumptions. All statements in this Annual Report on Form 10-K, other than statements of historical facts, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans, intentions, designs, expectations and objectives are forward-looking statements. The words “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “designed,” “developed,” “drive,” “estimate,” “expect,” “forecast,” “goal,” “indicate,” “intend,” “may,” “mission,” “opportunities,” “plan,” “possible,” “potential,” “predict,” “project,” “pursue,” “represent,” “seek,” “suggest,” “should,” “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. These statements reflect our current views with respect to future events or our future financial performance, are based on assumptions, and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. 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 in “Risk Factors,” in Item 1A, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 and elsewhere in this Annual Report on Form 10-K. Our forward-looking statements in this Annual Report on Form 10-K are based on current expectations and we do not assume any obligation to update any forward-looking statements for any reason, even if new information becomes available in the future. When used in this report, all references to “Theravance Biopharma”, the “Company”, or “we” and other similar pronouns refer to Theravance Biopharma, Inc. collectively with its subsidiaries.*

## PART I

### ITEM 1. BUSINESS

#### Overview

Theravance Biopharma, Inc. ("Theravance Biopharma") is a diversified biopharmaceutical company primarily focused on the discovery, development and commercialization of organ-selective medicines. Our purpose is to create transformational medicines to improve the lives of patients suffering from serious illnesses. Our research is focused in the areas of inflammation and immunology.

In pursuit of our purpose, we apply insights and innovation at each stage of our business and utilize our internal capabilities and those of partners around the world. We apply organ-selective expertise to biologically compelling targets to discover and develop medicines designed to treat underserved localized diseases and to limit systemic exposure, in order to maximize patient benefit and minimize risk. These efforts leverage years of experience in developing lung-selective medicines to treat respiratory disease, including the United States ("US") Food and Drug Administration (the "FDA") approved YUPELRI<sup>®</sup> (revefenacin) inhalation solution indicated for the maintenance treatment of patients with chronic obstructive pulmonary disease ("COPD"). Our pipeline of internally discovered programs is targeted to address significant patient needs.

We have an economic interest in potential future payments from Glaxo Group or one of its affiliates ("GSK") pursuant to its agreements with Innoviva, Inc. ("Innoviva") relating to certain programs, including TRELEGY ELLIPTA.

#### 2019 Highlights

2019 was a critical year of progress as our key programs advanced towards important milestones, and we continued to advance our strategic objective to transform the treatment of serious diseases through the discovery, development and commercialization of organ-selective medicines designed to maximize patient benefit while minimizing patient risk.

#### *Commercial Launch of YUPELRI*

In the first quarter of 2019, we formally launched our commercial sales and marketing efforts for YUPELRI with our partner Mylan N.V. ("Mylan"). YUPELRI is the first and only once-daily, nebulized maintenance medicine for COPD. Theravance Biopharma and Mylan copromote in the US, with our combined sales infrastructures targeting health care professionals that treat the universe of COPD patients suitable for YUPELRI. Theravance Biopharma focuses on the hospital segment whereas Mylan focuses on the outpatient segment. We are pleased and highly encouraged by market feedback and early performance indicators accumulated over the last 12 months, including hospital formulary reviews and wins, patient uptake, and market access.

Complementing our progress in the US, in the second quarter of 2019, we announced the expansion of our strategic collaboration with Mylan for YUPELRI to include development and commercialization in China and adjacent territories where COPD (i) affects a significant portion of the population; (ii) is one of the top three causes of mortality; and (iii) presents a major financial burden to the healthcare system.

#### *Progression of Late-Stage Studies of TD-1473 and Amprexetine*

In the first quarter of 2019, we announced the initiation of the Phase 2b/3 clinical study of TD-1473 in ulcerative colitis. TD-1473, our oral gut-selective pan-JAK inhibitor for inflammatory intestinal diseases, partnered with Janssen Biotech, Inc. ("Janssen"), is progressing in a Phase 2b/3 study in ulcerative colitis and a Phase 2 study in Crohn's disease. TD-1473 is designed to treat inflammatory intestinal disease directly at the site of inflammation in an organ-selective manner, with minimal systemic exposure or corresponding immunosuppressive effects. Both studies are actively enrolling patients. We anticipate results from the Phase 2b portion of the ulcerative colitis study and Phase 2 Crohn's disease study in late 2020. Data from the Phase 2b portion of the ulcerative colitis study and the Phase 2

Crohn's disease study would inform an opt-in decision by Janssen and potentially trigger a significant payment to Theravance Biopharma.

Also in the first quarter of 2019, we announced the initiation of a Phase 3 clinical study of ampreloxetine in symptomatic neurogenic orthostatic hypotension ("nOH"). Ampreloxetine, our norepinephrine reuptake inhibitor, wholly-owned by Theravance Biopharma, previously demonstrated in a small exploratory Phase 2 in nOH, clinically meaningful effect and durability of effect out to 20 weeks of ampreloxetine treatment. The ongoing Phase 3 registrational program includes two studies, one designed to assess treatment benefit over four weeks and the other to assess durability of response. Given limitations of existing nOH treatments, ampreloxetine may represent an important treatment option for patients and a meaningful commercial opportunity in the US.

#### *Positive Phase 1 Data and Clinical Progression of TD-8236*

In the third quarter of 2019, we announced positive data from a Phase 1 study of TD-8236, our wholly-owned inhaled lung-selective pan-JAK inhibitor for inflammatory lung diseases including steroid resistant asthma. Data from the Phase 1 study showed TD-8236 to be generally well-tolerated as a single dose in healthy subjects and as a once-daily dose given for seven consecutive days in patients with mild asthma. The study also demonstrated minimal systemic exposure in study subjects in addition to evidence of biological activity in mild asthmatics. Based on encouraging initial results, we extended the Phase 1 study to include assessment of a range of additional biomarkers in patients with more severe asthma, and, in the fourth quarter of 2019, we announced the initiation of a Phase 2 allergen challenge study of TD-8236. Our organ-selective approach with TD-8236 presents an opportunity to develop a broad-based anti-inflammatory to treat moderate to severe asthma regardless of T2 phenotype.

#### *Advancement of TD-5202 into the Clinic*

In the third quarter of 2019, we announced the initiation of a Phase 1 clinical study of TD-5202, our oral gut-selective irreversible JAK3 inhibitor for inflammatory intestinal diseases, partnered with Janssen. The Phase 1 single ascending dose and multiple ascending dose study is primarily designed to evaluate the safety and tolerability of TD-5202 in healthy subjects. In February 2020, we announced that data from the Phase 1 study indicated that TD-5202 was generally well tolerated as a single oral dose up to 2000 milligrams and as a twice-daily oral dose up to 2000 milligrams total per day given for ten consecutive days in healthy subjects. We and our partner Janssen believe TD-5202 represents a promising additional therapeutic approach for addressing a range of inflammatory intestinal diseases.

#### *Global License Agreement with Pfizer Inc. for Skin-Selective Pan-JAK Inhibitors*

In the fourth quarter of 2019, we entered into a global license agreement with Pfizer Inc. ("Pfizer") for our preclinical skin-selective, locally-acting pan-JAK inhibitor program. The compounds in this program are designed to target validated pro-inflammatory pathways and are specifically designed to possess skin-selective activity with minimal systemic exposure.

Under this agreement, Pfizer has an exclusive license to develop, manufacture and commercialize certain compounds for all use other than gastrointestinal, ophthalmic and respiratory applications. We received an upfront cash payment of \$10.0 million and are eligible to receive up to an additional \$240.0 million in development and sales milestone payments from Pfizer. In addition, we will be eligible to receive a tiered royalty on worldwide net sales of any potential products under the license at percentage royalty rates ranging from middle single-digits to low double-digits.

#### **Our Programs**

The table below summarizes the status of our approved product and our other product candidates in development. The table also includes the status of the respiratory programs in which we have an economic interest and for which GSK is responsible pursuant to agreements between Innoviva and GSK ("GSK-Partnered Respiratory Programs"). These programs consist primarily of the TRELEGY ELLIPTA program. We have an economic interest in these programs through our interest in Theravance Respiratory Company, LLC, a limited liability company managed by Innoviva. The status of all GSK-Partnered Respiratory Programs referenced in this Annual Report on Form 10-K are based solely upon publicly available information and may not reflect the most recent developments under the programs.

	Program	Indication	Research	Phase 1	Phase 2	Phase 3	Filed	Marketed	Collaborator
Organ-selective	YUPELRJ® (revefenacin) LAMA	COPD	[Progress bar]					Marketed	Mylan
	TD-1473 (JNJ-8398) GI JAKi	UC	[Progress bar]			Phase 2b/3			Janssen
		CD	[Progress bar]			Phase 2			Janssen
	TD-8236 Inhaled JAKi	Inflammatory lung diseases	[Progress bar]			Phase 2			Wholly-owned
	TD-5202 Irreversible JAK3i	Inflammatory intestinal diseases	[Progress bar]		Phase 1			Janssen	
	New programs	Multiple	[Progress bar]		Research			Wholly-owned	
Amprexetine (TD-9855) NRI	Symptomatic nOH	[Progress bar]				Phase 3		Wholly-owned	
	Program	Indication	Research	Phase 1	Phase 2	Phase 3	Filed	Marketed	Rights
Economic Interest	TRELEGY ELLIPTA FF/UMEC/VI <sup>(1)</sup>	COPD	[Progress bar]					Marketed	GSK & Innoviva
		Asthma	[Progress bar]				Filed		
	VIBATIV® (telavancin)	cSSSI, HABP/VABP, concurrent bacteremia	[Progress bar]					Marketed	Cumberland Pharmaceuticals
	Velusetrag (TD-5108)	Gastroparesis	[Progress bar]			Phase 2			Alfasigma
	TD-8954 (TAK-954)	POGD IV	[Progress bar]			Phase 2			Takeda
	Skin-selective JAKi	Dermatological diseases	[Progress bar]		Research			Pfizer	

(1) Theravance Biopharma holds an 85% economic interest in an upward-tiering royalty stream of 6.5% – 10% payable by GSK (net of Theravance Respiratory Company, LLC (“TRC”) expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters). 75% of the royalties received are pledged to service PharmaSM notes and 25% of the royalties received retained by Theravance Biopharma.

**Glossary of Defined Terms used in Table Above:**

- COPD:** Chronic Obstructive Pulmonary Disease;
- CD:** Crohn’s Disease;
- cSSSI:** Complicated Skin and Skin Structure Infections;
- FF:** Fluticasone Furoate;
- HABP/VABP:** Hospital-Acquired and Ventilator-Associated Bacterial Pneumonia;
- IV:** Intravenous;
- JAKi:** Janus Kinase Inhibitor;
- LAMA:** Long-Acting Muscarinic Antagonist;
- nOH:** Neurogenic Orthostatic Hypotension;
- NRI:** Norepinephrine Reuptake Inhibitor;
- POGD:** Post-Operative Gastrointestinal Dysfunction;
- UC:** Ulcerative Colitis;
- UMEC:** Umeclidinium; and
- VI:** Vilanterol

## **Program Highlights**

### ***YUPELRI (revefenacin) Inhalation Solution***

YUPELRI (revefenacin) inhalation solution is a once-daily, nebulized long-acting muscarinic antagonist (“LAMA”) approved for the maintenance treatment of COPD in the US. LAMAs are recognized by international COPD treatment guidelines as a cornerstone of maintenance therapy for COPD, regardless of severity of disease. Our market research indicates there is an enduring population of COPD patients in the US that either need or prefer nebulized delivery for maintenance therapy. The stability of revefenacin in both metered dose inhaler and dry powder inhaler (“MDI/DPI”) formulations suggests that revefenacin could also serve as a foundation for novel handheld combination products.

In November 2018, YUPELRI was approved by the FDA for the maintenance treatment of patients with COPD. Following shipments into commercial channel in late 2018, we and Mylan formally launched our sales and marketing efforts in early 2019. We are tracking several key performance metrics to gauge success in building early market acceptance, including formulary reviews, formulary wins and market access. Since launch, YUPELRI has been accepted on 85 formularies that account for a total of 220 institutional accounts. With respect to market access, we have confirmed commercial coverage of approximately 50% and Medicare Part B coverage for patients with supplement insurance of 100%. In May 2019, we announced that YUPELRI had been assigned a permanent unique Healthcare Common Procedure Coding System (“J-CODE”) ahead of schedule. The permanent J-CODE allows for full automation of prescription adjudication, simplifying the process for pharmacists and patients.

### ***Mylan Collaboration***

In January 2015, Mylan and we established a strategic collaboration for the development and commercialization of revefenacin. Partnering with a world leader in nebulized respiratory therapies enables us to expand the breadth of our revefenacin development program and extend our commercial reach beyond the acute care setting. Mylan funded the Phase 3 development program of YUPELRI, enabling us to advance other high value pipeline assets alongside YUPELRI.

Under the terms of the Mylan Development and Commercialization Agreement (the “Mylan Agreement”), Mylan and we co-develop revefenacin for COPD and other respiratory diseases. We led the US Phase 3 development program for YUPELRI in COPD, and Mylan was responsible for reimbursement of our costs related to the registrational program up until the approval of the first new drug application (“NDA”), after which costs are shared. With YUPELRI approved in the US, Mylan is leading commercialization, and we co-promote the product in the US under a profit and loss sharing arrangement (65% to Mylan; 35% to Theravance Biopharma). Outside the US, Mylan will be responsible for development and commercialization and will pay us a tiered royalty on net sales at percentage royalty rates ranging from low double-digits to mid-teens.

Under the Mylan Agreement, Mylan paid us an initial payment of \$15.0 million in cash in 2015. Also, pursuant to an agreement to purchase ordinary shares entered into on January 30, 2015, Mylan Inc., the indirect parent corporation of Mylan, made a \$30.0 million equity investment in us, buying 1,585,790 ordinary shares from us in February 2015. These shares were subsequently sold by Mylan in 2018.

In February 2016, we earned a \$15.0 million development milestone payment for achieving 50% enrollment in the Phase 3 twelve-month safety study, and in June 2019, we announced the expansion of the Mylan Agreement to grant Mylan exclusive development and commercialization rights to nebulized revefenacin in China and adjacent territories, which include Hong Kong SAR, the Macau SAR, and Taiwan. In exchange, we received an upfront payment of \$18.5 million (before a required tax withholding) and will be eligible to receive additional potential development and sales milestones totaling \$54.0 million and low double-digit tiered royalties on net sales of nebulized revefenacin, if approved. Mylan will be responsible for all aspects of development and commercialization in the partnered regions, including pre- and post-launch activities and product registration and all associated costs.

We retain worldwide rights to revefenacin delivered through other dosage forms, such as a MDI/DPI, while Mylan has certain rights of first negotiation with respect to our development and commercialization of revefenacin delivered other than via a nebulized inhalation product.

Under the Mylan Agreement, as of December 31, 2019, we are eligible to receive from Mylan potential global development, regulatory and sales milestone payments totaling up to \$259.0 million in the aggregate, with \$206.5 million associated with YUPELRI monotherapy, and \$52.5 million associated with future potential combination products. Of the \$206.5 million associated with monotherapy, \$187.5 million relates to sales milestones based on achieving certain levels of net sales and \$19.0 million relates to global development and regulatory actions. The \$52.5 million associated with future potential combination products relates solely to global development and regulatory actions. We do not expect to earn any sales milestone payments from Mylan in 2020.

#### ***Gut-selective Pan-Janus Kinase (JAK) Inhibitor Program (TD-1473)***

JAK inhibitors function by inhibiting the activity of one or more of the Janus kinase family of enzymes (JAK1, JAK2, JAK3, TYK2) that play a key role in cytokine signaling. Inhibiting these JAK enzymes interferes with the JAK/STAT signaling pathway and, in turn, modulates the activity of a wide range of pro-inflammatory cytokines. JAK inhibitors are currently approved for the treatment of rheumatoid arthritis, myelofibrosis, and ulcerative colitis and have demonstrated therapeutic benefit for patients with Crohn's disease. However, these products are known to have side effects based on their systemic exposure. In TD-1473, our program goal is to develop an orally administered, gut-selective pan-JAK inhibitor specifically designed to distribute adequately and predominantly to the tissues of the intestinal tract, treating inflammation in those tissues while minimizing systemic exposure. TD-1473 is in development as a potential treatment for a range of inflammatory intestinal diseases, including ulcerative colitis and Crohn's disease.

Based on positive results from a Phase 1b exploratory study in ulcerative colitis and following dialogues with the FDA and European Medicines Agency ("EMA") regarding study design, we advanced TD-1473 into two clinical studies in inflammatory intestinal diseases. The Phase 2 (DIONE) study is a twelve-week randomized, double-blind, placebo-controlled study designed to evaluate the efficacy and safety of patients with Crohn's disease, which began dosing patients in late 2018. The Phase 2b/3 (RHEA) study is a randomized, double-blind, placebo-controlled study to evaluate the efficacy and safety of eight weeks induction and 44 weeks maintenance therapy in patients with ulcerative colitis, which began dosing patients in early 2019. We anticipate results from the Phase 2b portion of the ulcerative colitis study and Phase 2 Crohn's disease study in late 2020.

#### ***Irreversible JAK3 Inhibitor (TD-5202)***

TD-5202 is an investigational, orally administered, gut-selective, irreversible JAK3 inhibitor that has demonstrated a high affinity for the JAK3 enzyme. Through the selective inhibition of JAK3, TD-5202 interferes with the JAK/STAT signaling pathway and, in turn, modulates the activity of select pro-inflammatory cytokines, including IL-2, IL-15, and IL-21 which play a central role in the pathogenesis of T-cell mediated disease, including inflammatory intestinal disease, such as celiac disease. Importantly, TD-5202 is specifically designed to act locally within the intestinal wall thereby limiting systemic exposure.

In September 2019, we announced the initiation of a Phase 1 single ascending dose and multiple ascending dose trial designed to evaluate the safety and tolerability of TD-5202 in healthy subjects, plus assess plasma pharmacokinetics of TD-5202 to confirm circulating levels are low, consistent with a gut-selective approach. In February 2020, we announced that data from the Phase 1 study indicated that TD-5202 was generally well tolerated as a single oral dose up to 2000 milligrams and as a twice-daily oral dose up to 2000 milligrams total per day given for ten consecutive days in healthy subjects.

We are developing TD-1473 and TD-5202 in collaboration with Janssen as part of the companies' global co-development and commercialization agreement for novel, gut-selective JAK inhibitors.

#### ***Janssen Biotech Collaboration***

In February 2018, we announced a global co-development and commercialization agreement with Janssen for TD-1473 and related back-up compounds for inflammatory intestinal diseases, including ulcerative colitis and Crohn's



disease. Under the terms of the agreement, we received an upfront payment of \$100.0 million and will be eligible to receive up to an additional \$900.0 million in potential payments, inclusive of a potential opt-in payment following completion of the Phase 2 Crohn's study and the Phase 2b induction portion of the ulcerative colitis study. At that time, Janssen can elect to obtain an exclusive license to develop and commercialize TD-1473 and certain related compounds by paying us a fee of \$200.0 million. Upon such election, we and Janssen will jointly develop and commercialize TD-1473 in inflammatory intestinal diseases, and we and Janssen will share profits and losses in the US and expenses related to a potential Phase 3 program (67% to Janssen; 33% to Theravance Biopharma). In addition, we would receive royalties on ex-US sales at double-digit tiered percentage royalty rates.

The closing of the opt-in portion of the transaction is subject to clearance under the Hart-Scott-Rodino Antitrust Improvements Act ("HSR Act"). After Phase 2, Janssen would lead subsequent development of TD-1473 in Crohn's disease if it makes such an election. We will lead development of TD-1473 in ulcerative colitis through completion of the Phase 2b/3 study. If TD-1473 is commercialized, we have the option to co-commercialize in the US, and Janssen would have sole commercialization responsibilities outside the US.

### ***Amprexetine (TD-9855)***

Amprexetine is an investigational, once-daily norepinephrine reuptake inhibitor ("NRI") being developed for the treatment of patients with symptomatic neurogenic orthostatic hypotension ("nOH"). nOH is caused by primary autonomic failure conditions, including multiple system atrophy, Parkinson's disease and pure autonomic failure. The compound has high affinity for binding to norepinephrine transporters. By blocking the action of these transporters, amprexetine causes an increase in extracellular concentrations of norepinephrine.

Based on positive top-line four-week results from a small exploratory Phase 2 study in nOH and discussions with the FDA, we advanced amprexetine into a Phase 3 program. The Phase 3 program includes two studies. The first study (SEQUOIA) is a four-week, randomized double-blind, placebo-controlled study designed to evaluate the efficacy and safety of amprexetine in patients with symptomatic nOH. The second study (REDWOOD) is a four-month open label study followed by a six-week randomized withdrawal phase to evaluate the durability of patient response of amprexetine. We announced the initiation of patient dosing in each Phase 3 study in early 2019. We anticipate results from the Phase 3 four-week efficacy study (SEQUOIA) in late 2020.

### ***Lung-selective Pan-JAK Inhibitor Program (TD-8236)***

TD-8236 is an investigational, inhaled lung-selective pan-JAK inhibitor that has demonstrated a high affinity for each of the JAK family of enzymes (JAK1, JAK2, JAK3 and TYK2) that play a key role in cytokine signaling. Inhibiting these JAK enzymes interferes with the JAK/STAT signaling pathway and, in turn, modulates the activity of a wide range of pro-inflammatory cytokines. While orally-administered JAK inhibitors are currently approved for the treatment of a range of inflammatory diseases, no inhaled JAK inhibitor is approved for the treatment of airway disease, including asthma. The pan-JAK activity of TD-8236 suggests that it may impact a broad range of cytokines that have been associated both T2-high and T2-low asthma. Many moderate to severe asthma patients comprising both T2 phenotypes remain symptomatic despite being compliant on high doses of inhaled steroids. Importantly, TD-8236 is designed to distribute and exert its anti-inflammatory effect within the lungs following dry powder inhalation, with the potential to treat inflammation within that organ while minimizing systemic exposure. In pre-clinical assessments, TD-8236 has shown to potentially inhibit targeted mediators of T2-high and T2-low asthma in human cells.

In September 2019, we announced positive results from a Phase 1 single-ascending dose and multiple-ascending dose clinical trial of TD-8236. Data from the study demonstrated TD-8236 to be generally well tolerated as a single dose (up to 4500 mcg) in healthy volunteers and as a once-daily dose (up to 4000 mcg) given for seven consecutive days in patients with mild asthma. There were no severe or serious adverse events reported and no subject discontinued due to adverse events. Pharmacokinetic results from the trial showed that plasma levels of TD-8236 in study subjects were several orders of magnitude below the levels predicted to cause systemic pharmacological activity, which is consistent with data from preclinical studies and the organ-selective design of the compound. Additionally, evidence of the biological activity of TD-8236 in the lung was demonstrated in the repeat dose portion of the study, which recruited patients with mild asthma who had elevated levels of fractional exhaled nitric oxide ("FeNO"). FeNO is an established disease activity biomarker in asthma, and reductions in FeNO are associated with a decrease in airway

inflammation. Over the seven days of TD-8236 administration once daily by inhalation, patients experienced reductions in both pre-dose and six-hour post-dose FeNO compared to placebo at all doses above 150mcg. Importantly, this included >10ppb reduction in pre-dose FeNO on Day 7 for all doses above 150mcg. The Phase 1 clinical trial also includes a biomarker cohort designed to evaluate multiple doses of TD-8236 in patients with moderate-to-severe asthma, including patients with T2-high and T2-low disease. Data from the biomarker cohort is expected in mid-2020. In December 2019, we announced the initiation of a Phase 2 allergen challenge study of TD-8236 in asthma patients, and we expect data from the study in mid-2020.

### **Economic Interest in GSK-Partnered Respiratory Programs**

We hold an 85% economic interest in any future payments that may be made by GSK to Theravance Respiratory Company, LLC (“TRC”) pursuant to its agreements with Innoviva (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters) relating to the GSK-Partnered Respiratory Programs, which Innoviva partnered with GSK and assigned to TRC in connection with Innoviva’s separation of its biopharmaceutical operations into its then wholly-owned subsidiary Theravance Biopharma in June 2014. The GSK-Partnered Respiratory Programs consist primarily of the TRELEGY ELLIPTA program, which is described in more detail below. We are entitled to this economic interest through our equity ownership in TRC. Our economic interest does not include any payments associated with RELVAR® ELLIPTA®/BREO® ELLIPTA®, ANORO® ELLIPTA® or vilanterol monotherapy.

The following information regarding the TRELEGY ELLIPTA program is based solely upon publicly available information and may not reflect the most recent developments under the programs.

#### ***TRELEGY ELLIPTA (the combination of fluticasone furoate/umeclidinium bromide/vilanterol)***

TRELEGY ELLIPTA provides the activity of an inhaled corticosteroid (FF) plus two bronchodilators (UMEC, a LAMA, and VI, a long-acting beta2 agonist, or LABA) in a single delivery device administered once-daily. TRELEGY ELLIPTA is approved for use in the US and European Union (“EU”) for the long-term, once-daily, maintenance treatment of patients with COPD. We hold an 85% economic interest in the royalties payable by GSK to TRC on worldwide net sales (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters) through our interest in TRC. Those royalties are upward-tiering from 6.5% to 10%, resulting in cash flows to us of approximately 5.5% to 8.5% of worldwide net sales of TRELEGY ELLIPTA (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters). Theravance Biopharma is not responsible for any of GSK’s costs related to the development or commercialization of TRELEGY ELLIPTA.

GSK and Innoviva conducted two global pivotal Phase 3 studies of TRELEGY ELLIPTA in COPD, the IMPACT study and the FULFIL study. In September 2017, GSK and Innoviva announced that the FDA approved TRELEGY ELLIPTA for the long-term, once-daily, maintenance treatment of appropriate patients with COPD. TRELEGY ELLIPTA is currently approved in 44 markets, including China and Japan, with additional approvals expected in 2020. In August 2019, GSK announced that it had filed a supplemental new drug application (“sNDA”) to the FDA supporting revised labelling for TRELEGY ELLIPTA on reduction in risk of all-cause mortality compared with ANORO ELLIPTA in patients with COPD. There is an FDA Advisory Committee meeting scheduled for April 21, 2020 related to this sNDA.

Additionally, GSK and Innoviva conducted a Phase 3 (CAPTAIN) study of TRELEGY ELLIPTA in patients with asthma. In May 2019, GSK and Innoviva announced that the study had met its primary endpoint and in October 2019, GSK announced it had filed a sNDA with the FDA seeking an additional indication for the use of once-daily, single-inhaler triple therapy, TRELEGY ELLIPTA, for the treatment of asthma in adults. The FDA’s decision on the asthma application is expected by the second half of 2020.

#### ***Theravance Respiratory Company, LLC***

Our equity interest in TRC is the mechanism by which we are entitled to the 85% economic interest in any future payments made by GSK under the strategic alliance agreement and under the portion of the collaboration agreement assigned to TRC by Innoviva (net of TRC expenses paid and the amount of cash, if any, expected to be used

by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters). The royalty payments from GSK to TRC arising from the net sales of TRELEGY ELLIPTA are presented on our consolidated statements of operations within “Income from investment in TRC, LLC” and is classified as non-operating income. Seventy-five percent of the “Income from investment in TRC, LLC,” as evidenced by the Issuer Class C Units (defined below), is available only for payment of the \$250.0 million aggregate amount of 9.0% fixed-rate non-recourse term notes due 2033 (the “Non-Recourse 2033 Notes”) and is not available to pay our other obligations or the claims of our other creditors.

Our special purpose subsidiary Triple Royalty Sub LLC (the “Issuer”) issued the Non-Recourse 2033 Notes in November 2018, which are secured by all of the Issuer’s rights, title and interest as a holder of certain membership interests (the “Issuer Class C Units”) in TRC. The Issuer Class C Units entitle the Issuer to receive 63.75% of the economic interest that TRC receives in any future payments made by GSK under the agreements described above, or 75% of the income from our ownership interest in TRC. The primary source of funds to make payments on the Non-Recourse 2033 Notes will be 75% of the income from our ownership interest in TRC, as evidenced by the Issuer Class C Units. Since the principal and interest payments on the Non-Recourse 2033 Notes are ultimately based on royalties from TRELEGY ELLIPTA product sales, which will vary from quarter to quarter, the Non-Recourse 2033 Notes may be repaid prior to the final maturity date in 2033. In order to comply with Regulation RR – Credit Risk Retention (17 C.F.R. Part 246), 5.0% of the original principal amount (equal to \$12.5 million) of the Non-Recourse 2033 Notes were retained by Theravance Biopharma R&D, Inc., our wholly-owned subsidiary, and is eliminated in our consolidated financial statements.

Through October 15, 2020, the terms of the Non-Recourse 2033 Notes provide that to the extent there are insufficient funds to satisfy the Issuer’s scheduled quarterly interest obligations, the shortfall shall be added to the principal amount of the Non-Recourse 2033 Notes without a default or event of default occurring. The terms of the Non-Recourse 2033 Notes also provide that, at Theravance Biopharma’s option, the quarterly interest payment obligations can be satisfied by making a capital contribution to the Issuer, but not for more than four (4) consecutive quarterly interest payment dates or for more than six (6) quarterly interest payment dates during the term of the notes. For the April 15, 2019 and July 15, 2019 interest payment dates, Theravance Biopharma R&D, Inc. (parent entity of Issuer) made a capital contribution to satisfy the interest payment obligations for these two scheduled payments while we arbitrated a dispute with Innoviva, discussed below. As discussed in “*Item 8, Note 15. Subsequent Events,*” subject to certain conditions, Company subsidiaries have agreed to issue Non-Recourse 2035 Notes, the proceeds from which would be used in part to repay the outstanding balance of Non-Recourse 2033 Notes.

In May 2019, we announced that we had initiated an arbitration against Innoviva and TRC because Innoviva, as manager of TRC, had caused TRC to withhold certain distributions owed to us with respect to the Company’s 85% economic interest in TRC since the quarter ended December 31, 2018, and Innoviva’s previous statement to us that it intended to prevent TRC from making cash distributions during 2019. The arbitration hearing commenced in July 2019.

As of June 30, 2019, we were owed, under the TRC LLC Agreement, \$20.0 million in net royalty income payments for the period from the fourth quarter of 2018 through the second quarter of 2019. After initiation of the arbitration and prior to the final decision being issued in the third quarter of 2019, Innoviva caused TRC to make a partial distribution of funds to us in the amount of \$10.6 million.

In September 2019, the arbitrator issued a final decision. The arbitrator ruled that, while Innoviva breached the TRC LLC Agreement by failing to provide quarterly financial plans to us as required, the withholding of funds by Innoviva with respect to certain TRELEGY ELLIPTA development and commercialization initiatives proposed by Innoviva was not in breach of the TRC LLC Agreement. The arbitrator also found that Innoviva had not breached its fiduciary duties to us. The arbitrator awarded injunctive relief to give more certainty to future dealings between the parties and to clarify certain terms of the TRC LLC Agreement, and imposed additional obligations on Innoviva to obtain the consent of GSK for any proposed investment of TRC funds that requires the consent of GSK under the collaboration agreement dated November 14, 2002, as amended. Under the arbitrator’s ruling, Innoviva was permitted to withhold \$6.9 million of TRC funds due to us for certain TRELEGY ELLIPTA development and commercialization initiatives proposed by Innoviva. These initiatives were presented to GSK in the fourth quarter of 2019 and could not be implemented without GSK’s approval, which was required by no later than during the first quarter of 2020. The amount due to us as of September 30, 2019, under the TRC LLC Agreement, was \$16.7 million.

In January 2020, we were informed by Innoviva that GSK had declined to adopt certain TRELEGY ELLIPTA development and commercialization initiatives proposed by Innoviva. As a result, Innoviva would not continue to withhold any funds that had been reserved for those initiatives, and we subsequently received \$15.8 million in a distribution from Innoviva representing our share of the net royalty income payments for the third quarter of 2019 plus the \$6.9 million previously withheld, less estimated TRC expenses for the quarter ended December 31, 2019 and estimated expenses through 2020. The amount due to us from TRC, as of December 31, 2019, was \$28.6 million. For more information, see the risk factor under the heading “*We do not control the commercialization of TRELEGY ELLIPTA and we do not control TRC; accordingly the amount of royalties we receive will depend, among other factors, on GSK’s ability to further commercialize TRELEGY ELLIPTA and TRC’s decisions concerning use of cash in accordance with the TRC LLC Agreement*” of this Annual Report on Form 10-K.

## **Other Economic Interests**

### ***VIBATIV® (telavancin)***

VIBATIV is an FDA-approved injectable antibiotic used in the treatment of certain serious bacterial infections including hospital-acquired and ventilator-associated bacterial pneumonia (“HABP”/“VABP”), as well as complicated skin and skin structure infections (“cSSSI”). This life-saving antibiotic was discovered and developed by Theravance Biopharma and is designed for difficult to treat Gram-positive bacterial infections, including those that are classified as methicillin-resistant (“MRSA”) or multidrug-resistant.

In November 2018, we sold VIBATIV to Cumberland Pharmaceuticals Inc. (“Cumberland”) pursuant to an Asset Purchase Agreement (the “Agreement”). Under the Agreement, Cumberland paid us \$20.0 million at the closing of the transaction and \$5.0 million in April 2019. In addition, Cumberland will pay us tiered royalties of up to 20% of US net sales of VIBATIV until such time as royalties cumulatively total \$100.0 million.

### ***Velusetrag (TD-5108)***

Velusetrag is an oral, investigational medicine developed for gastrointestinal motility disorders. It is a highly selective agonist with high intrinsic activity at the human 5-HT4 receptor.

#### *Alfasigma S.p.A. Collaboration*

In 2012, we partnered with Alfasigma S.p.A. (“Alfasigma”) in the development of velusetrag and its commercialization in certain countries. In April 2018, Alfasigma exercised its option to develop and commercialize velusetrag, and we elected not to pursue further development. Global rights to develop, manufacture and commercialize velusetrag have been transferred to Alfasigma under the terms of the collaboration agreement. Also, under the terms of the collaboration with Alfasigma, we are entitled to receive future potential development, regulatory and commercial milestone payments of up to \$26.8 million and tiered royalties on global net sales ranging from high single digits to the mid-teens.

### ***Selective 5-HT4 Agonist (TD-8954)***

TD-8954 is a selective 5-HT4 receptor agonist being developed for potential use in the treatment of gastrointestinal motility disorders.

#### *Takeda Collaborative Arrangement*

In June 2016, we entered into a License and Collaboration Agreement (the “Takeda Agreement”) with Millennium Pharmaceuticals, Inc. (“Millennium”), in order to establish a collaboration for the development and commercialization of TD-8954 (TAK-954). Millennium is an indirect wholly-owned subsidiary of Takeda Pharmaceutical Company Limited (“Takeda”). TD-8954 is currently in a Phase 2 study as a potential treatment for post-operative gastrointestinal dysfunction. Under the terms of the Takeda Agreement, Takeda is responsible for worldwide development and commercialization of TD-8954. We received an upfront cash payment of \$15.0 million and will be eligible to receive success-based development, regulatory and sales milestone payments from Takeda. We will also be

eligible to receive a tiered royalty on worldwide net sales by Takeda at percentage royalty rates ranging from low double-digits to mid-teens.

#### ***Skin-selective Pan-JAK inhibitor program***

In December 2019, we entered into a global license agreement with Pfizer for our preclinical skin-selective, locally-acting pan-JAK inhibitor program (the “Pfizer Agreement”). The compounds in this program are designed to target validated pro-inflammatory pathways and are specifically designed to possess skin-selective activity with minimal systemic exposure.

Under the Pfizer Agreement, Pfizer has an exclusive license to develop, manufacture and commercialize certain compounds for all uses other than gastrointestinal, ophthalmic and respiratory applications. We received an upfront cash payment of \$10.0 million and are eligible to receive up to an additional \$240.0 million in development and sales milestone payments from Pfizer. In addition, we will be eligible to receive a tiered royalty on worldwide net sales of any potential products under the license at percentage royalty rates ranging from middle single-digits to low double-digits.

#### **Research Projects**

Our research goal is to design organ-selective medicines that target diseased tissues, without systemic exposure, in order to maximize patient benefit and minimize risk. The intention is to expand the therapeutic index of our potential medicines compared to conventional systemic therapies. Our efforts leverage years of experience in developing lung-selective medicines, such as YUPELRI, to treat respiratory diseases, and have led to the discovery of the gut-selective pan-JAK inhibitor TD-1473 and irreversible JAK3 inhibitor TD-5202 for inflammatory intestinal diseases and the lung-selective inhaled JAK inhibitor TD-8236 in serious respiratory disease. We plan to advance towards the clinic other research projects with various mechanisms of action, each specifically tailored for the organ of interest, as we identify and validate potentially appropriate compounds. Our research is focused in the areas of inflammation and immunology, and our pipeline of internally discovered programs is targeted to address significant patient needs.

#### **Our Strategy**

Our core purpose is to create transformational medicines to improve the lives of patients suffering from serious illnesses. We strive to apply insight and innovation at each stage of our business, including research, development and commercialization. Our principle strategic objective is to transform the treatment of serious diseases through the discovery, development, and commercialization of organ-selective medicines designed to maximize patient benefit while minimizing patient risk.

We follow these core guiding principles in our mission to drive value creation:

- Focus on insight and innovation;
- Outsource non-core activities;
- Create and foster an integrated environment; and
- Aggressively manage uncertainty.

We manage our pipeline with the goal of optimizing program value and allocation of resources. We employ multiple strategies for commercialization of our products. Our approach may involve retaining product rights and marketing a product independently in the US or we may partner a product to extend our commercial reach to expand our geographic reach, and/or to manage the financial risk associated with the program. Alternatively, we may monetize or divest an asset that we designate as outside our core business, where we believe the program is optimized by leveraging partner capabilities and removing or limiting our research and development costs.

## **Manufacturing**

We rely primarily on a network of third-party manufacturers, including contract manufacturing organizations, to produce the active pharmaceutical ingredients (“API”) and drug products required for our clinical trials. We believe that we have in-house expertise to manage this network of third-party manufacturers, and we believe that we will be able to continue to negotiate third-party manufacturing arrangements on commercially reasonable terms and that it will not be necessary for us to obtain internal manufacturing capacity in order to develop or, potentially, commercialize our products. However, if we are unable to obtain contract manufacturing or obtain such manufacturing on commercially reasonable terms, or if manufacturing is interrupted at one of our suppliers, whether due to regulatory or other reasons, we may not be able to develop our products as planned.

Any inability to acquire sufficient quantities of API or drug product in a timely manner from current or future sources could disrupt our research and development programs and the conduct of future clinical trials. For more information, see the risk factors under the heading “*We rely on a single source of supply for a number of our product candidates, and our business will be harmed if any of these single-source manufacturers are not able to satisfy demand and alternative sources are not available*” of this Annual Report on Form 10-K.

## **Government Regulation**

The development and commercialization of pharmaceutical products and our product candidates by us, our collaboration partners and licensees, GSK, and Cumberland and our ongoing research are subject to extensive regulation by governmental authorities in the US and other countries. Before marketing in the US, any medicine must undergo rigorous preclinical studies and clinical studies and an extensive regulatory approval process implemented by the FDA under the Federal Food, Drug, and Cosmetic Act. Outside the US, the ability to market a product depends upon receiving a marketing authorization from the appropriate regulatory authorities which are subject to equally rigorous regulatory obligations. The requirements governing the conduct of clinical studies, marketing authorization, pricing and reimbursement vary widely from country to country. In any country, however, the commercialization of pharmaceutical products is permitted only if the appropriate regulatory authority is satisfied that we have presented adequate evidence of the safety, quality and efficacy of the product.

Before commencing clinical studies in humans in the US, we must submit to the FDA an investigational new drug application (“IND”) that includes, among other things, the general investigational plan and protocols for specific human studies and the results of preclinical studies. An IND will go into effect 30 days following its receipt by the FDA unless the FDA issues a clinical hold. Once clinical studies have begun under the IND, they are usually conducted in three phases and under FDA oversight. These phases generally include the following:

**Phase 1.** The product candidate is introduced into patients or healthy human volunteers and is tested for safety, dose tolerance and pharmacokinetics.

**Phase 2.** The product candidate is introduced into a limited patient population to assess the efficacy of the drug in specific, targeted indications, assess dosage tolerance and optimal dosage, and identify possible adverse effects and safety risks.

**Phase 3.** If a compound is found to be potentially effective and to have an acceptable safety profile in Phase 2 evaluations, the clinical study will be expanded to further demonstrate clinical efficacy, optimal dosage and safety within an expanded patient population.

The results of product development, preclinical studies and clinical studies must be submitted to the FDA as part of an NDA. The NDA also must contain extensive manufacturing information. The Prescription Drug User Fee Act (“PDUFA”) establishes timeframes for FDA review of NDAs, with a performance goal of reviewing and acting on 90 percent of priority new molecular entity (“NME”) NDA submissions within 6 months of the 60-day filing date, and to review and act on 90 percent of standard NME NDA submissions within 10 months of the 60-day filing date. The 2007 Food and Drug Administration Amendments Act gave the FDA authority to require implementation of a formal Risk Evaluation and Management Strategy to ensure that the benefits of a product outweigh its risks. At the end of the review period, the FDA communicates either approval of the NDA or a complete response listing the application’s deficiencies.

Once approved, the FDA may withdraw the product approval if compliance with post-marketing regulatory standards is not maintained or if safety or quality issues are identified after the product reaches the marketplace. In addition, the FDA may require post-marketing studies, sometimes referred to as Phase 4 studies, to monitor the safety and effectiveness of approved products, and may limit further marketing of the product based on the results of these post-marketing studies. The FDA has broad post-market regulatory and enforcement powers, including the ability to suspend or delay issuance of approvals, seize products, withdraw approvals, enjoin violations, and initiate criminal prosecution.

If regulatory approval for a medicine is obtained, the clearance to market the product will be limited to those diseases and conditions approved by FDA and for which the medicine was shown to be effective, as demonstrated through clinical studies and specified in the medicine's labeling. Even if this regulatory approval is obtained, a marketed medicine, its manufacturer and its manufacturing facilities are subject to continual review and periodic inspections by the FDA. The FDA ensures the quality of approved medicines by carefully monitoring manufacturers' compliance with its current Good Manufacturing Practice ("cGMP") regulations. The cGMP regulations for drugs contain minimum requirements for the methods, facilities, and controls used in manufacturing, processing, and packaging of a medicine. The regulations are intended to make sure that a medicine is safe for use, and that it has the ingredients and strength it claims to have. Discovery of previously unknown problems with a medicine, manufacturer or facility may result in restrictions on the medicine or manufacturer, including costly recalls or withdrawal of the medicine from the market.

We, our collaboration partners and licensees are also subject to various laws and regulations regarding laboratory practices, the experimental use of animals and the use and disposal of hazardous or potentially hazardous substances in connection with our research. In each of these areas, as above, the FDA and other regulatory authorities have broad regulatory and enforcement powers, including the ability to suspend or delay issuance of approvals, seize products, withdraw approvals, enjoin violations, and initiate criminal prosecution, any one or more of which could have a material adverse effect upon our business, financial condition and results of operations.

Outside the US our, our collaboration partners', licensees', GSK's and Cumberland's ability to market products will also depend on receiving marketing authorizations from the appropriate regulatory authorities. Risks similar to those associated with FDA approval described above exist with the regulatory approval processes in other countries.

#### **United States Healthcare Reform**

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (together the "Healthcare Reform Act"), substantially changed the way healthcare is financed by both governmental and private insurers, and impacts pricing and reimbursement of YUPELRI and the marketed drugs with respect to which we are entitled to royalty or similar payments, and related commercial operations. Certain provisions of the Healthcare Reform Act have been subject to judicial challenges as well as efforts to repeal or replace them or to alter their interpretation or implementation. We expect that the Healthcare Reform Act, its implementation, efforts to repeal or replace, or invalidate, the Healthcare Reform Act or portions thereof, and other healthcare reform measures that may be adopted in the future, could have a material adverse effect on our industry generally and on the ability of us, our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties to maintain or increase sales of our existing products or to successfully commercialize our product candidates, if approved. For more information, see the risk factor under the heading "*Changes in healthcare law and implementing regulations, including government restrictions on pricing and reimbursement, as well as healthcare policy and other healthcare payor cost-containment initiatives, may negatively impact us, our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties*" of this Annual Report on Form 10-K.

#### **Pharmaceutical Pricing and Reimbursement**

We participated in and had certain price reporting obligations under the Medicaid Drug Rebate program for VIBATIV for which we remain responsible, as described in greater detail under the risk factor "*If we failed to comply with our reporting and payment obligations under the Medicaid Drug Rebate program or other governmental pricing 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” of this Annual Report on Form 10-K.

Our ability, and the ability of our collaboration partners, licensees, GSK and Cumberland to commercialize our products successfully, and our ability to attract commercialization partners for our products, depends in significant part on the availability of adequate financial coverage and reimbursement from third-party payors, including, in the US, governmental payors such as the Medicare and Medicaid programs, managed care organizations, and private health insurers. The reimbursement environment is described in greater detail under the risk factor *“Changes in healthcare law and implementing regulations, including government restrictions on pricing and reimbursement, as well as healthcare policy and other healthcare payor cost-containment initiatives, may negatively impact us, our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties”* of this Annual Report on Form 10-K.

### **Fraud and Abuse Laws**

Our interactions and arrangements with customers and third-party payors are subject to applicable US federal and state fraud and abuse laws and equivalent third country laws. These laws and the related risks are described in greater detail under the risk factor *“Our relationships with customers and third-party payors are 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”* of this Annual Report on Form 10-K.

### **Data Privacy and Protection**

We are subject to laws and regulations that address privacy and data security. In the US, numerous federal and state laws and regulations, including state data breach notification laws (e.g., California Consumer Privacy Act of 2018 (AB 375)), state health information privacy laws, and federal and state consumer protection laws (e.g., Section 5 of the Federal Trade Commission Act (“FTC Act”)), govern the collection, use, disclosure, and protection of health-related and other personal information. Similar obligations apply in foreign countries. For example, the General Data Protection Regulation (“GDPR”) which entered into force on May 25, 2018 amplified existing data protection obligations in the EU. These laws and related risks are described in greater detail under the risk factor *“If we fail to comply with data protection laws and regulations, we could be subject to government enforcement actions (which could include civil or criminal penalties), private litigation and/or adverse publicity, which could negatively affect our operating results and business”* of this Annual Report on Form 10-K.

### **Patents and Proprietary Rights**

We will be able to protect our technology from unauthorized use by third parties only to the extent that our technology is covered by valid and enforceable patents or is effectively maintained as trade secrets. Our success in the future will depend in part on obtaining patent protection for our product candidates. Accordingly, patents and other proprietary rights are essential elements of our business. Our policy is to seek in the US and selected foreign countries patent protection for novel technologies and compositions of matter that are commercially important to the development of our business. For proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our drug discovery process that involve proprietary know-how and technology that is not covered by patent applications, we rely on trade secret protection and confidentiality agreements to protect our interests. We require all of our employees, consultants and advisors to enter into confidentiality agreements. Where it is necessary to share our proprietary information or data with outside parties, our policy is to make available only that information and data required to accomplish the desired purpose and only pursuant to a duty of confidentiality on the part of those parties.

As of December 31, 2019, we owned 445 issued US patents and 1,590 granted foreign patents, as well as additional pending US patent applications and foreign patent applications. The claims in these various patents and patent applications are typically directed to compositions of matter, including claims covering product candidates, crystalline forms, lead compounds and key intermediates, pharmaceutical compositions, methods of use and/or processes for making our compounds. In particular, our wholly-owned subsidiary Theravance Biopharma R&D IP, LLC owns the following US patents which are listed in the *FDA Approved Drug Products with Therapeutic Equivalence Evaluations*



(Orange Book) for YUPELRI (revefenacin) inhalation solution: US Patent No. 7,288,657, expiring on December 23, 2025; US Patent No. 7,491,736, expiring March 10, 2025; US Patent No. 7,521,041, expiring March 10, 2025; US Patent No. 7,550,595, expiring March 10, 2025; US Patent No. 7,585,879, expiring March 10, 2025; US Patent No. 7,910,608, expiring March 10, 2025; US Patent No. 8,034,946, expiring March 10, 2025; US Patent No. 8,053,448, expiring March 10, 2025; US Patent No. 8,273,894, expiring March 10, 2025; US Patent No. 8,541,451, expiring August 25, 2031; US Patent No. 9,765,028, expiring July 14, 2030; US Patent No. 10,106,503, expiring March 10, 2025; US Patent No. 10,343,995, expiring March 10, 2025; and US Patent No. 10,550,081, expiring July 14, 2030 (each of the aforementioned expiration dates not including any patent term extensions that may be available under the Drug Price Competition and Patent Term Restoration Act of 1984). Thus, the last to expire patent currently listed in the Orange Book for YUPELRI (revefenacin) inhalation solution expires on August 25, 2031. On December 19, 2018, we filed patent term extension (“PTE”) applications in the US Patent and Trademark Office (“USPTO”) for US Patent Nos. 7,288,657 and 7,585,879. These PTE applications are currently pending and if granted, we will be permitted to extend the term of one of these patents for the period determined by the USPTO.

Issued US and foreign patents generally expire 20 years after their filing date. The patent rights relating to YUPELRI (revefenacin) inhalation solution currently consist of issued US patents, pending US patent applications and counterpart patents and patent applications in a number of jurisdictions, including Europe. Additionally, our patent rights relating to velusetrag, amprelosetine and TD-1473 currently include issued US composition of matter patents that expire in 2025, 2030 and 2036, respectively (not including any patent term extensions that may be available under the Drug Price Competition and Patent Term Restoration Act of 1984), as well as additional issued US patents, pending US patent applications and/or counterpart patents and patent applications in a number of jurisdictions. Nevertheless, issued patents can be challenged, narrowed, invalidated or circumvented, which could limit our ability to stop competitors from marketing similar products and threaten our ability to commercialize our product candidates. Our patent position, similar to other companies in our industry, is generally uncertain and involves complex legal and factual questions. To maintain our proprietary position, we will need to obtain effective claims and enforce these claims once granted. It is possible that, before any of our products can be commercialized, any related patent may expire or remain in force only for a short period following commercialization, thereby reducing any advantage of the patent. Also, we do not know whether any of our patent applications will result in any issued patents or, if issued, whether the scope of the issued claims will be sufficient to protect our proprietary position.

## **Competition**

Our development programs, and the marketed products to which we are entitled to profit share revenue, royalty or similar payments, target four therapeutic areas—infected disease, respiratory, gastrointestinal, and neurological. In research, we apply organ-selective expertise to biologically compelling targets to discover and develop medicines designed to treat underserved localized diseases and to limit systemic exposure, in order to maximize patient benefit and minimize risk. Our commercial infrastructure is focused primarily on the acute care setting. We expect that any medicines that we commercialize with our collaborative partners or on our own will compete with existing and future market-leading medicines.

Many of our competitors have substantially greater financial, technical and personnel resources than we have. In addition, many of these competitors have significantly greater commercial infrastructures than we have. Our ability to compete successfully will depend largely on our ability to leverage our experience in drug discovery, development and commercialization to:

- discover and develop medicines that are superior to other products in the market;
- attract and retain qualified scientific, clinical development and commercial personnel;
- obtain patent and/or other proprietary protection for our medicines and technologies;
- obtain required regulatory approvals;
- commercialize approved products; and

- successfully collaborate with pharmaceutical companies in the discovery, development and commercialization of new medicines.

***YUPELRI (revefenacin) inhalation solution, a long-acting muscarinic antagonist (LAMA)***

YUPELRI competes with the nebulized LAMA Lonhala<sup>®</sup> Magnair<sup>®</sup> (glycopyrrolate) dosed two times per day and with short acting nebulized bronchodilators that are dosed three to four times per day.

***TRELEGY ELLIPTA or FF/UMEC/VI (fluticasone furoate/umeclidinium bromide/vilanterol)***

TRELEGY ELLIPTA competes in Europe with Trimbaw (beclometasone dipropionate/formoterol fumarate/glycopyrronium bromide, dosed twice per day) from Chiesi Farmaceutici and, in the future, may compete with other closed triple products that are currently under review by the EMA. AstraZeneca and Novartis both have closed triple products dosed twice per day. AstraZeneca's Breztri Aerosphere (budesonide/glycopyrronium/formoterol fumarate), also known as PT-010, was approved for COPD during 2019 in Japan and China and is under review for COPD by both the FDA and the EMA. Novartis's QVM-149 (mometasone/glycopyrronium/indacaterol) is under review by the EMA for asthma. TRELEGY ELLIPTA also competes with "open triple" therapy which can be accomplished by the concurrent use of two or three products. An example of such use includes a LABA/ICS combination such as AstraZeneca's Symbicort and a LAMA such as Boehringer Ingelheim's Spiriva.

***Amprelosetine (TD-9855) norepinephrine reuptake inhibitor ("NRI")***

If successfully developed and approved, amprelosetine would be expected to compete predominantly with Northera<sup>®</sup> (droxidopa) marketed by Lundbeck NA Ltd., and to a lesser extent, midodrine and fludrocortisone which are available as generics.

**Employees**

As of December 31, 2019, we had 316 employees, of which 177 were engaged in research and development activities. Of our 316 employees, 293 were located in the US, and 23 were located in Ireland. We consider our employee relations to be good.

**Financial Information About Geographic Areas**

Information on our total revenues attributed to geographic areas and customers who represented at least 10% of our total revenues is included in "Item 8, Note 4. Segment Information," to our consolidated financial statements in this Annual Report on Form 10-K.

**Corporation Information**

Theravance Biopharma was incorporated in the Cayman Islands in July 2013 under the name Theravance Biopharma, Inc. Theravance Biopharma began operating as an independent, publicly-traded company on June 2, 2014 following a spin-off from Innoviva, Inc. Our corporate address in the Cayman Islands and principal executive office is P.O. Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands and the address of our wholly-owned US operating subsidiary Theravance Biopharma US, Inc. is 901 Gateway Boulevard, South San Francisco, California 94080. While Theravance Biopharma is incorporated under Cayman Island law, the Company became an Irish tax resident effective July 1, 2015. The address of our wholly-owned Irish operating subsidiary, Theravance Biopharma Ireland Limited, is Connaught House, Burlington Road, Dublin 4, Ireland.

**Available Information**

Our Internet address is [www.theravance.com](http://www.theravance.com). Our investor relations website is located at <http://investor.theravance.com>. We make available free of charge on our investor relations website under "SEC Filings" our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, our directors' and officers' Section 16 Reports and any amendments to those reports as soon as reasonably practicable after filing or furnishing such materials to the US Securities and Exchange Commission ("SEC"). Our current Code of Business Conduct, Corporate Governance Guidelines, Articles of Association, Board of Director Committee Charters, and other materials, including amendments thereto, may also be found on our investor relations website under "Corporate

Governance.” The information found on our website is not part of this or any other report that we file with or furnish to the SEC. Theravance Biopharma and the Theravance Biopharma logo are registered trademarks of the Theravance Biopharma group of companies. Trademarks, tradenames or service marks of other companies appearing in this report are the property of their respective owners.

## ITEM 1A. RISK FACTORS

### RISKS RELATING TO THE COMPANY

The risks described below and elsewhere in this Annual Report on Form 10-K and in our other public filings with the SEC are not the only risks facing the Company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results.

***We anticipate that we will incur losses for the foreseeable future. We may never achieve or sustain profitability.***

First as part of Innoviva, Inc., and since June 2, 2014 as Theravance Biopharma, we have been engaged in discovery and development of compounds and product candidates since mid-1997. We may never generate sufficient revenue from the sale of medicines, royalties on sales by our partners or from our interest in Theravance Respiratory Company, LLC (“TRC”) to achieve profitability. During the years ended December 31, 2019, 2018, and 2017, we recognized net losses of \$236.5 million, \$215.5 million and \$285.4 million, respectively, which are reflected in the shareholders’ (deficit) equity on our consolidated balance sheets. We reflect cumulative net loss incurred after June 2, 2014, the effective date of our spin-off from Innoviva, Inc. (the “Spin-Off”), as accumulated deficit on our consolidated balance sheets, which was \$1.2 billion as of December 31, 2019. We expect to continue to incur net losses at least over the next several years as we continue our drug discovery and development efforts and incur significant preclinical and clinical development costs related to our current product candidates and commercialization and development costs relating to YUPELRI. In particular, to the extent we continue to advance our product candidates into and through additional clinical studies, we will incur substantial expenses. For example: we initiated a Phase 2b/3 induction and maintenance study of TD-1473 in ulcerative colitis; we initiated a Phase 2 induction study of TD-1473 in Crohn’s disease; and we have progressed amprelosetine (TD-9855) into a Phase 3 registrational program. The expenses associated with these clinical studies are substantial. We will incur costs and expenses associated with our co-promotion agreement with Mylan for commercialization of YUPELRI in the US, including the maintenance of an independent sales and marketing organization with appropriate technical expertise, a medical affairs presence and consultant support, and post-marketing studies. Our commitment of resources to the continued development of our existing product candidates, our discovery programs, and YUPELRI will require significant additional funding. Our operating expenses also will increase if, among other things:

- our earlier stage potential products move into later-stage clinical development, which is generally more expensive than early stage development;
- additional preclinical product candidates are selected for clinical development;
- we pursue clinical development of our potential or current products in new indications;
- we increase the number of patents we are prosecuting or otherwise expend additional resources on patent prosecution or defense; or
- we acquire or in-license additional technologies, product candidates, products or businesses.

While we are generating revenues from (i) sales of YUPELRI, (ii) our economic interest in royalties from net sales of TRELEGY ELLIPTA paid to TRC (63.75% of which amounts are used to make payments on the Non-Recourse 2033 Notes), (iii) payments under collaboration agreements, and (iv) minor royalties from the net sales of VIBATIV, we do not expect to generate significant revenues or become profitable in the immediate future. Since we or our collaborators or licensees may not successfully develop additional products, obtain required regulatory approvals,

manufacture products at an acceptable cost or with appropriate quality, or successfully market and sell such products with desired margins, our expenses will continue to exceed any revenues we may receive for the foreseeable future.

In the absence of substantial licensing payments, contingent payments or other revenues from third-party collaborators, royalties on sales of products licensed under our intellectual property rights, future revenues from those product candidates in development that receive regulatory approval or other sources of revenues, we will continue to incur operating losses and will require additional capital to execute our business strategy. The likelihood of reaching, and the time required to reach, and then to sustain, profitability are highly uncertain. As a result, we expect to continue to incur substantial losses for the foreseeable future. We are uncertain when or if we will ever be able to achieve or sustain profitability. Failure to become and remain profitable would adversely affect the price of our securities and our ability to raise capital and continue operations.

***Any delay in commencing or completing clinical studies for product candidates and any adverse results from clinical or non-clinical studies or regulatory obstacles product candidates may face, would harm our business and the price of our securities could fall.***

Each of our product candidates must undergo extensive non-clinical and clinical studies as a condition to regulatory approval. Non-clinical and clinical studies are expensive, take many years to complete and study results may lead to delays in further studies, new requirements for conducting future studies or decisions to terminate programs. The commencement and completion of clinical studies for our product candidates may be delayed and programs may be terminated due to many factors, including, but not limited to:

- lack of effectiveness of product candidates during clinical studies;
- adverse events, safety issues or side effects (or perceived adverse developments or results) relating to the product candidates or their formulation into medicines;
- inability to raise additional capital in sufficient amounts to continue our development programs, which are very expensive;
- inability to enter into partnering arrangements relating to the development and commercialization of our programs and product candidates;
- delays in patient enrollment and variability in the number and types of patients available for clinical studies;
- the need to sequence clinical studies as opposed to conducting them concomitantly in order to conserve resources;
- our inability or the inability of our collaborators or licensees to manufacture or obtain from third parties materials sufficient for use in non-clinical and clinical studies;
- governmental or regulatory delays or suspensions of the conduct of the clinical trials and changes in regulatory requirements, policy and guidelines, including as a result of any class-based risks that emerge as an area of FDA or other regulatory agency focus;
- failure of our partners to advance our product candidates through clinical development;
- difficulty in maintaining contact with patients after treatment, resulting in incomplete data;
- varying regulatory requirements or interpretations of data among the FDA and foreign regulatory authorities; and

- a regional disturbance where we or our collaborative partners are enrolling patients in clinical trials, such as a pandemic, terrorist activities or war, political unrest or a natural disaster.

Any adverse developments or results or perceived adverse developments or results with respect to our clinical programs including, without limitation, any delays in development in our programs, any halting of development in our programs, any difficulties or delays encountered with regard to the FDA or other third country regulatory authorities with respect to our programs, or any indication from clinical or non-clinical studies that the compounds in our programs are not safe or efficacious, could have a material adverse effect on our business and cause the price of our securities to fall.

In July 2019, the FDA issued a Boxed Warning for a systemically active pan-JAK inhibitor, calling out an increased risk of pulmonary embolism and death following the results of a safety study in patients with rheumatoid arthritis. We are focused on developing pan-JAK inhibitors that are designed to remain organ-selective so that they do not become systemically active in order to minimize the risk of side effects. It is unknown at this time what, if any, additional requirements the FDA may put in place with respect to the development of JAK inhibitors generally or what other future FDA actions may have on the prospects for JAK inhibitors. Delays or adverse developments or results or perceived adverse developments or results relating to JAK inhibitors could harm our business and could cause the price of our securities to fall. Examples of such adverse developments include, but are not limited to:

- the FDA and/or other regulatory authorities determining that additional non-clinical or clinical studies are required with respect to our JAK inhibitor programs;
- safety, efficacy or other concerns relating to our JAK inhibitor programs or JAK inhibitors under development or commercialized by other companies;
- the FDA determining that class-based warnings are required for JAK inhibitors generally; or
- any change in FDA policy or guidance regarding JAK inhibitors.

***If our product candidates are not approved by regulatory authorities, including the FDA, we will be unable to commercialize them.***

The FDA must approve any new medicine before it can be marketed and sold in the US. We will not obtain this approval for a product candidate unless and until the FDA approves an NDA. We, or our collaborative partners, must provide the FDA and similar foreign regulatory authorities with data from preclinical and clinical studies that demonstrate that our product candidates comply with the regulatory requirements for the quality of medicinal products and are safe and effective for a defined indication before they can be approved for commercial distribution. FDA or foreign regulatory authorities may disagree with our trial design and our interpretation of data from preclinical studies and clinical trials. The processes by which regulatory approvals are obtained from the FDA and foreign regulatory authorities to market and sell a new product are complex, require a number of years, depend upon the type, complexity and novelty of the product candidate and involve the expenditure of substantial resources for research, development and testing. The FDA has substantial discretion in the drug approval process and may require us to conduct additional nonclinical and clinical testing or to perform post-marketing studies. Further, the implementation of new laws and regulations, and revisions to FDA clinical trial design guidance may lead to increased uncertainty regarding the approvability of new drugs. See the risk factor entitled “*Any delay in commencing or completing clinical studies for product candidates and any adverse results from clinical or non-clinical studies or regulatory obstacles product candidates may face, would harm our business and the price of our securities could fall*” above for additional information. In addition, the FDA has additional standards for approval of new drugs, including recommended advisory committee meetings for certain new molecular entities, and formal risk evaluation and mitigation requirements at the FDA’s discretion. Even if we receive regulatory approval of a product, the approval may limit the indicated uses for which the drug may be marketed or impose significant restrictions or limitations on the use and/or distribution of such product.

In addition, in order to market our medicines in foreign jurisdictions, we or our collaborative partners must obtain separate regulatory approvals in each country. The approval procedure varies among countries and can involve additional testing, and the time required to obtain approval may differ from that required to obtain FDA approval. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. Conversely, failure to obtain approval in one or more jurisdictions may make approval in other jurisdictions more difficult. These laws, regulations, additional requirements and changes in interpretation could cause non-approval or further delays in the FDA's or other regulatory authorities' review and approval of our and our collaborative partner's product candidates, which would materially harm our business and financial condition and could cause the price of our securities to fall.

***If additional capital is not available, we may have to curtail operations or we could be forced to share our rights to commercialize our product candidates with third parties on terms that may not be favorable to us.***

Based on our current operating plans and financial forecasts, we believe that our existing cash, cash equivalents and marketable securities will be sufficient to meet our anticipated operating needs for at least the next twelve months. However, our current operating plans or financial forecasts occasionally change. For example, in August 2017, we announced an increase in our anticipated operating loss for 2017, primarily driven by our decision to accelerate funding associated with the next phase of development of TD-1473 in our JAK inhibitor program. If our current operating plans or financial forecasts change, we may require or seek additional funding sooner in the form of public or private equity or equity-linked offerings, debt financings or additional collaborations and licensing arrangements.

We may need to raise additional capital in the future to, among other things:

- fund our discovery efforts and research and development programs;
- fund our commercialization strategies for any approved products and to prepare for potential product approvals;
- support our independent sales and marketing organization and medical affairs team;
- support our additional investments in YUPELRI, including potential post-marketing clinical studies;
- progress any additional product candidates into later-stage development without funding from a collaboration partner;
- progress mid-to-late stage product candidates into later-stage development, if warranted;
- respond to competitive pressures; and
- acquire complementary businesses or technologies.

Our future capital needs depend on many factors, including:

- the scope, duration and expenditures associated with our discovery efforts and research and development programs;
- continued scientific progress in these programs;
- the extent to which we encounter technical obstacles in our research and development programs;
- the outcome of potential licensing or partnering transactions, if any;
- competing technological developments;

- the extent of our proprietary patent position in any approved products and our product candidates;
- our facilities expenses, which will vary depending on the time and terms of any facility lease or sublease we may enter into, and other operating expenses;
- the scope and extent of the expansion of our sales and marketing efforts;
- potential litigation and other contingencies; and
- the regulatory approval process for our product candidates.

We intend to seek to raise additional capital or obtain future funding through public or private equity offerings, debt financings or additional collaborations and licensing arrangements to meet our capital needs or to take advantage of opportunistic market conditions. We may not be able to obtain additional financing on terms favorable to us, if at all. General market conditions may make it difficult for us to seek financing from the capital markets. We may be required to relinquish rights to our technologies, product candidates or territories, or grant licenses on terms that are not favorable to us, in order to raise additional funds through collaborations or licensing arrangements. We may sequence preclinical and clinical studies as opposed to conducting them concomitantly in order to conserve resources, or delay, reduce or eliminate one or more of our research or development programs and reduce overall overhead expenses. If we are unable to raise additional capital or obtain future funding in sufficient amounts or on terms acceptable to us, we may have to make reductions in our workforce and may be prevented from continuing our discovery, development and commercialization efforts and exploiting other corporate opportunities. This would likely harm our business, prospects and financial condition and cause the price of our securities to fall.

***We may seek to obtain future financing through the issuance of debt or equity, which may have an adverse effect on our shareholders or may otherwise adversely affect our business.***

If we raise funds through the issuance of additional debt, including convertible debt or debt secured by some or all of our assets, or equity, any debt securities or preferred shares issued will have rights, preferences and privileges senior to those of holders of our ordinary shares in the event of liquidation. Neither the terms of our \$230.0 million of 3.25% convertible senior notes, due 2023 (the “Convertible Senior 2023 Notes”) nor the terms of the Issuer’s 9.0% non-recourse notes due in or before 2033 (“Non-Recourse 2033 Notes”) restrict our ability to issue additional debt. If additional debt is issued or we otherwise borrow additional funds, there is a possibility that once all senior claims are settled, there may be no assets remaining to pay out to the holders of ordinary shares. As referenced in “*Item 8, Note 15. Subsequent Events*” below, two Company subsidiaries entered into Note Purchase Agreements (defined below) relating to Non-Recourse 2035 Notes (defined below) that, if issued following satisfaction of customary conditions, would have the net effect of increasing our outstanding debt by \$150 million. 75% of the income from our investment in TRC is currently available only for payment of the Non-Recourse 2033 Notes and is not available to pay our other obligations or the claims of our other creditors and, if the Non-Recourse 2035 Notes are issued and the Non-Recourse 2033 Notes redeemed, will only be available for payment of the Non-Recourse 2035 Notes. In addition, if we raise funds through the issuance of additional equity, whether through private placements or public offerings (including through the sales agreement we entered into in December 2019), such an issuance would dilute ownership of our current shareholders that do not participate in the issuance. For example, as further discussed in “*Item 8, Note 15. Subsequent Events*”, in February 2020, we closed a public offering of 5,500,000 ordinary shares. Since our Spin-Off in June 2014, we have raised an aggregate of \$982.4 million in a combination of (i) the sale of approximately 23.0 million ordinary shares, and (ii) \$630.0 million aggregate principal amount of notes. If we are unable to obtain any needed additional funding, we may be required to reduce the scope of, delay, or eliminate some or all of, our planned research, development and commercialization activities or to license to third parties the rights to develop and/or commercialize products or technologies that we would otherwise seek to develop and/or commercialize ourselves or on terms that are less attractive than they might otherwise be, any of which could materially harm our business.

Furthermore, the terms of any additional debt securities we may issue in the future may impose restrictions on our operations, which may include limiting our ability to incur additional indebtedness, pay dividends on or repurchase our share capital, or make certain acquisitions or investments. In addition, we may be subject to covenants requiring us

to satisfy certain financial tests and ratios, and our ability to satisfy such covenants may be affected by events outside of our control.

***If our partners do not satisfy their obligations under our agreements with them, or if they terminate our partnerships with them, we may not be able to develop or commercialize our partnered product candidates as planned.***

We have an exclusive development and commercialization agreement with Alfasigma for velusetrag, our internally discovered 5-HT4 agonist for the treatment of gastromotility disorders, under which we have transferred to Alfasigma global rights for velusetrag. In January 2015, we entered into a collaboration agreement with Mylan for the development and commercialization of a nebulized formulation of our LAMA revefenacin, including YUPELRI. Under the terms of the agreement, we and Mylan will co-develop nebulized revefenacin, including YUPELRI, for COPD and other respiratory diseases. In June 2016, we entered into a License and Collaboration Agreement with Millennium Pharmaceuticals, Inc., an indirect wholly-owned subsidiary of Takeda Pharmaceutical Company Limited (collectively with Millennium, “Takeda”) in order to establish a collaboration for the development and commercialization of TD-8954, a selective 5-HT4 receptor agonist in development for gastrointestinal motility disorders. Under the terms of the agreement, Takeda is responsible for worldwide development and commercialization of TD-8954. In February 2018, we announced a global co-development and commercialization agreement with Janssen for TD-1473 and related back-up compounds for inflammatory intestinal diseases, including ulcerative colitis and Crohn’s disease. In December 2019, we entered into a License Agreement with Pfizer Inc. (“Pfizer”). Under the license agreement, we provide Pfizer with an exclusive global license to develop, manufacture and commercialize compounds from our preclinical program for skin-targeted, locally-acting pan-Janus kinase (JAK) inhibitors that can be rapidly metabolized. In connection with these agreements, these parties have certain rights regarding the use of patents and technology with respect to the compounds in our development programs, including development and marketing rights.

Our partners have in the past and may in the future not fulfill all of their obligations under these agreements, and, in certain circumstances, they or we may terminate our partnership with them. In either event, we may be unable to assume the development and commercialization responsibilities covered by the agreements or enter into alternative arrangements with a third-party to develop and commercialize such product candidates. If a partner elected to promote alternative products and product candidates such as its own products and product candidates in preference to those licensed from us, does not devote an adequate amount of time and resources to our product candidates or is otherwise unsuccessful in its efforts with respect to our products or product candidates, the development and commercialization of product candidates covered by the agreements could be delayed or terminated, and future payments to us could be delayed, reduced or eliminated and our business and financial condition could be materially and adversely affected. Accordingly, our ability to receive any revenue from the product candidates covered by these agreements is dependent on the efforts of our partners. If a partner terminates or breaches its agreements with us, otherwise fails to complete its obligations in a timely manner or alleges that we have breached our contractual obligations under these agreements, the chances of successfully developing or commercializing product candidates under the collaboration could be materially and adversely affected. In addition, effective collaboration with a partner requires coordination to achieve complex and detail-intensive goals between entities that potentially have different priorities, capabilities and processes and successful navigation of the challenges such coordination entails. We could also become involved in disputes with a partner, which could lead to delays in or termination of our development and commercialization programs and time-consuming and expensive litigation or arbitration. Furthermore, termination of an agreement by a partner could have an adverse effect on the price of our ordinary shares or other securities even if not material to our business.

***We do not control TRC and, in particular, have no control over the GSK-Partnered Respiratory Programs or access to non-public information regarding the development of the GSK-Partnered Respiratory Programs.***

Innoviva has assigned to TRC its strategic alliance agreement with GSK and all of its rights and obligations under its LABA collaboration agreement other than with respect to RELVAR<sup>®</sup> ELLIPTA<sup>®</sup>/BREQ<sup>®</sup> ELLIPTA<sup>®</sup>, ANORO<sup>®</sup> ELLIPTA<sup>®</sup> and vilanterol monotherapy. Our equity interest in TRC entitles us to an 85% economic interest in any future payments made by GSK under the strategic alliance agreement and under the portion of the collaboration agreement assigned to TRC (the “GSK Agreements”) (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters), which agreements govern Innoviva’s and GSK’s respective interests in the GSK-Partnered Respiratory Programs. Our equity interest covers various drug programs including in particular all TRELEGY ELLIPTA (the combination of fluticasone furoate,



umeclidinium, and vilanterol in a single ELLIPTA<sup>®</sup> inhaler, previously referred to as the Closed Triple) products. Our economic interest does not include any payments by GSK associated with RELVAR<sup>®</sup> ELLIPTA<sup>®</sup>/BREQ<sup>®</sup> ELLIPTA<sup>®</sup>, ANORO<sup>®</sup> ELLIPTA<sup>®</sup> or vilanterol monotherapy. Innoviva controls TRC and, except for certain limited consent rights, we have no right to participate in the business and affairs of TRC. Innoviva has the exclusive right to appoint TRC's manager who, among other things, is responsible for the day-to-day management of the GSK-Partnered Respiratory Programs and exercises the rights relating to the GSK-Partnered Respiratory Programs. As a result, we have no rights to participate in, or access to non-public information about, the development and commercialization work GSK and Innoviva are undertaking with respect to the GSK-Partnered Respiratory Programs and no right to enforce rights under the GSK Agreements assigned to TRC. Moreover, we have many of the same risks with respect to our and TRC's dependence on GSK as we have with respect to our dependence on our own partners.

***If there are any adverse developments or perceived adverse developments with respect to the GSK-Partnered Respiratory Programs in which we have a substantial economic interest, including TRELEGY ELLIPTA, our business will be harmed, and the price of our securities could fall.***

We have no access to non-public information regarding the development progress of, or plans for, the GSK-Partnered Respiratory Programs, including TRELEGY ELLIPTA, and we have little, if any, ability to influence the progress of those programs because our interest in these programs is only through our ownership interest in TRC, which is controlled by Innoviva. However, if any of the GSK-Partnered Respiratory Programs in which we have a substantial economic interest encounter delays, do not demonstrate required quality, safety and efficacy, are terminated, or if there are any adverse developments or perceived adverse developments with respect to such programs, our business will be harmed, and the price of our securities could fall. Examples of such adverse developments include, but are not limited to:

- disappointing or lower than expected sales of TRELEGY ELLIPTA;
- any regulatory difficulty in seeking approval of an asthma indication for TRELEGY ELLIPTA, which GSK is undertaking following its successful Phase 3 clinical program in asthma patients;
- disputes between GSK and Innoviva or between us and Innoviva, such as our recent dispute with Innoviva concerning the withholding of royalty payments due to us under the TRC LLC Agreement;
- the emergence of new closed triple or other alternative therapies or any developments regarding competitive therapies, including comparative price or efficacy of competitive therapies;
- GSK deciding to delay or halt any of the GSK-Partnered Respiratory Programs in which we have a substantial economic interest;
- the FDA and/or other national or foreign regulatory authorities determining that any of the studies under these programs do not demonstrate the required quality, safety or efficacy, or that additional non-clinical or clinical studies are required with respect to such programs;
- any safety, efficacy or other concerns regarding any of the GSK-Partnered Respiratory Programs in which we have a substantial economic interest; or
- any particular FDA requirements or changes in FDA policy or guidance regarding these programs or any particular regulatory requirements in other jurisdictions or changes in the policies or guidance adopted by foreign regulatory authorities.

***Because GSK is a strategic partner of Innoviva, a strategic partner of TRC and a significant shareholder of us, it may take actions that in certain cases are materially harmful to our business and to our other shareholders.***

Based on our review of publicly available filings, as of December 31, 2019, GSK beneficially owned 16.9% of our outstanding ordinary shares. GSK is also a strategic partner to Innoviva with rights and obligations under the GSK Agreements, which include the strategic alliance agreement and the collaboration agreement assigned to TRC, that may cause GSK's interests to differ from our interests and those of our other shareholders. For example, GSK's

commercialization efforts are guided by a portfolio approach across products in which we have an indirect interest through TRC and products in which we have no interest. Accordingly, GSK's commercialization efforts may have the effect of reducing the value of our interest in TRC. Furthermore, GSK has a substantial respiratory product portfolio in addition to the products covered by the GSK Agreements. GSK may make respiratory product portfolio decisions or statements about its portfolio which may be, or may be perceived to be, harmful to the respiratory products partnered with Innoviva and TRC. For example, GSK could promote its own respiratory products and/or delay or terminate the development or commercialization of the respiratory programs covered by the GSK Agreements. Also, given the potential future royalty payments GSK may be obligated to pay under the GSK Agreements, GSK may seek to acquire us or acquire our interests in TRC in order to effectively reduce those payment obligations and the price at which GSK might seek to acquire us may not reflect our true value. As a result of these differing interests, GSK may take actions that it believes are in its best interest but which might not be in the best interests of either us or our other shareholders. In addition, GSK could also seek to challenge our or Innoviva's post-Spin-Off operations as violating or allowing it to terminate the GSK Agreements, including by violating the confidentiality provisions of those agreements or the master agreement between GSK, Innoviva and us entered into in connection with the Spin-Off (the "Master Agreement"), or otherwise violating its legal rights. While we believe our operations fully comply with the GSK Agreements, the Master Agreement and applicable law, there can be no assurance that we or Innoviva will prevail against any such claims by GSK. Moreover, regardless of the merit of any claims by GSK, we may incur significant cost and diversion of resources in defending them. In addition, any other action or inaction by either GSK or Innoviva that results in a material dispute, allegation of breach, litigation, arbitration, or significant disagreement between those parties or between us and either of those parties may be interpreted negatively by the market or by our investors, could harm our business and cause the price of our securities to fall. Other examples of these kinds of issues include but are not limited to non-performance of other contractual obligations and allegations of non-performance, disagreements over the relative marketing and sales efforts for Innoviva's partnered products and other GSK respiratory products, disputes over public statements, and similar matters. In general, any uncertainty about the respiratory programs partnered with GSK, the enforceability of the GSK Agreements or the relationship/partnership between Innoviva and GSK or between us and Innoviva could result in significant reduction in the market price of our securities and other material harm to our business.

***We do not control the commercialization of TRELEGY ELLIPTA and we do not control TRC; accordingly the amount of royalties we receive will depend, among other factors, on GSK's ability to further commercialize TRELEGY ELLIPTA and TRC's decisions concerning use of cash in accordance with the TRC LLC Agreement.***

We only receive revenues from TRELEGY ELLIPTA based on the amount of sales of this product by GSK in the form of our economic interest in the royalties paid by GSK to TRC, which is managed by Innoviva. There are no required minimum future payments associated with the product and any royalties we receive will depend on GSK's ability to commercialize the product, the future payments, if any, made by GSK under the strategic alliance agreement and under the portion of the collaboration agreement assigned to TRC, TRC's expenses, and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement. Following our recent arbitration with Innoviva concerning its withholding of certain royalty distributions to the TRC members, the arbitrator ruled that in the future if Innoviva desires to invest TRC funds in any initiatives that require the consent of GSK under the collaboration agreement, Innoviva must first obtain the consent of GSK. The timeframe for seeking GSK's consent for these initiatives and the associated dates by which GSK's consent must be received means that royalty distributions could be delayed for several quarters (if GSK ultimately does not consent) or perhaps not made at all until the completion of the initiatives (to the extent that GSK does consent and agrees with TRC that TRC funding will be used for such initiatives). This involves a number of risks and uncertainties, including:

- any future withholding by Innoviva or TRC of royalty distributions;
- GSK's ability to have an adequate supply of their respective product;
- ongoing compliance by GSK or its suppliers with the FDA's current Good Manufacturing Practice;
- compliance with other applicable FDA and other regulatory requirements in the US or other foreign jurisdictions, including those described elsewhere in this report;

- competition, whether from current competitors or new products developed by others in the future;
- claims relating to intellectual property;
- any future disruptions in GSK's business which would affect its ability to commercialize the product;
- the ability of TRELEGY ELLIPTA to achieve wider acceptance among physicians, patients, third-party payors, or the medical community in general;
- the amount of cash associated with any additional future TRELEGY ELLIPTA commercialization initiatives that Innoviva proposes to GSK for TRC to pursue, the time it may take to present those initiatives to GSK for approval and the time it takes for GSK to consent or not consent;
- global economic conditions; and
- any of the other risks relating to commercialization of products described elsewhere in this section.

These risks and uncertainties could materially impact the amount and timing of future royalties or other revenues we may receive from sales of TRELEGY ELLIPTA, which could have a material adverse effect on our future revenues, other financial results and our financial position and cause the price of our securities to fall.

In the future, Innoviva may cause TRC to withhold funds from distribution to its members, including our affiliates, for additional TRELEGY ELLIPTA development or commercialization initiatives that may be proposed, which would need to be approved by GSK in order to be implemented, or for other purposes. To the extent any TRELEGY ELLIPTA development or commercialization initiatives are timely approved by GSK and implemented, such initiatives may require funding beyond the amount withheld by TRC, and TRC may withhold additional amounts in subsequent quarters with respect to these initiatives. Accordingly, we cannot predict the amount of the funds that our affiliates would otherwise expect to receive from TRC that TRC may withhold in the future, or the timing of any such withholding.

We may object to the withholding of funds for additional proposed TRELEGY ELLIPTA initiatives or other purposes on the basis that such withholding is in violation of the terms of the TRC LLC Agreement or otherwise, and such objection could result in additional legal proceedings between us, TRC and Innoviva. Any such legal proceedings could divert the attention of management and cause us to incur significant costs, regardless of the outcome, which we cannot predict. An adverse result could materially and adversely affect the funds that our affiliates would otherwise expect to receive from TRC in the future and thus have a material adverse effect on our business, financial condition, and results of operations.

***Our ongoing drug discovery and development efforts might not generate additional successful product candidates or approvable drugs.***

Our compounds in clinical trials and our future leads for potential drug compounds are subject to the risks and failures inherent in the development of pharmaceutical products. These risks include, but are not limited to, the inherent difficulty in selecting the right drug and drug target and avoiding unwanted side effects, as well as unanticipated problems relating to product development, testing, enrollment, obtaining regulatory approvals, maintaining regulatory compliance, manufacturing, competition and costs and expenses that may exceed current estimates.

Clinical studies involving our product candidates may reveal that those candidates are ineffective, inferior to existing approved medicines, unacceptably toxic, or that they have other unacceptable side effects. In addition, the results of preclinical studies do not necessarily predict clinical success, and larger and later-stage clinical studies may not produce the same results as earlier-stage clinical studies.

Frequently, product candidates that have shown promising results in early preclinical or clinical studies have subsequently suffered significant setbacks or failed in later non-clinical or clinical studies. In some instances, there can

be significant variability in safety and/or efficacy results between different trials of the same product candidate due to numerous factors, including changes in trial protocols, differences in size and type of the patient populations, varying levels of adherence to the dosing regimen and other trial protocols and the rate of dropout among clinical trial participants. Clinical and non-clinical studies of product candidates often reveal that it is not possible or practical to continue development efforts for these product candidates. In addition, the design of a clinical trial can determine whether its results will support regulatory approval and flaws in the design of a clinical trial may not become apparent until the clinical trial is well underway or completed. If our clinical studies for our current product candidates, such as the clinical studies for our JAK inhibitor programs or amprelosetine in patients with nOH, are substantially delayed or suggest that any of our product candidates may not be efficacious or well tolerated, we could choose to cease development of these product candidates. In addition, our product candidates may have undesirable side effects or other unexpected characteristics that could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restricted label or the delay or denial of regulatory approval by regulatory authorities.

***We face substantial competition from companies with more resources and experience than we have, which may result in others discovering, developing, receiving approval for or commercializing products before or more successfully than we do.***

Our ability to succeed in the future depends on our ability to demonstrate and maintain a competitive advantage with respect to our approach to the discovery, development and commercialization of medicines. Our objective is to discover, develop and commercialize new small molecule medicines with superior efficacy, convenience, tolerability and/or safety using our proprietary insight in chemistry, biology and multivalency, where applicable. We expect that any medicines that we commercialize with or without our collaborative partners will compete with existing or future market-leading medicines.

Many of our current and potential competitors have substantially greater financial, technical and personnel resources than we have. In addition, many of these competitors have significantly greater commercial infrastructures than we have. Our ability to compete successfully will depend largely on our ability to leverage our experience in drug discovery and development, and, more recently, commercialization, to:

- discover and develop medicines that are superior to other products in the market;
- attract and retain qualified personnel;
- obtain and enforce patent and/or other proprietary protection for our medicines and technologies;
- conduct effective clinical trials and obtain required regulatory approvals;
- develop and effectively implement commercialization strategies, with or without collaborative partners; and
- successfully collaborate with pharmaceutical companies in the discovery, development and commercialization of new medicines.

Pharmaceutical companies, including companies with which we collaborate, may invest heavily to quickly discover and develop or in-license novel compounds that could make our product candidates obsolete. Accordingly, our competitors may succeed in obtaining patent protection, receiving FDA or equivalent regulatory approval outside the US or discovering, developing and commercializing medicines before we do. Other companies are engaged in the discovery of medicines that would compete with the product candidates that we are developing.

Any new medicine that competes with a generic or proprietary market leading medicine must demonstrate compelling advantages in efficacy, convenience, tolerability and/or safety in order to overcome severe price competition and be commercially successful. For example, YUPELRI competes predominantly with short-acting nebulized bronchodilators used three to four times per day and the nebulized LAMA Lonhala<sup>TM</sup> Magnair<sup>TM</sup> (SUN-101/eFlow<sup>®</sup>)

used twice per day. If we are not able to compete effectively against our current and future competitors, our business will not grow, our financial condition and operations will suffer and the price of our securities could fall.

***If we are unable to enter into future collaboration arrangements or if any such collaborations with third parties are unsuccessful, we will be unable to fully develop and commercialize all of our product candidates and our business will be adversely affected.***

We have collaborations with a number of third parties including Janssen for TD-1473 and related back-up compounds for inflammatory intestinal diseases, including ulcerative colitis and Crohn's disease and Mylan for the development and commercialization of a nebulized formulation of revefenacin, our LAMA compound (including YUPELRI). Also, through our interest in TRC we may participate economically in Innoviva's collaborations with GSK with respect to the GSK-Partnered Respiratory Programs. Additional collaborations will likely be needed to fund later-stage development of certain programs that have not been licensed to a collaborator, such as our NEP inhibitor program and to commercialize the product candidates in our programs if approved by the necessary regulatory authorities. We evaluate commercial strategy on a product by product basis either to engage pharmaceutical or other healthcare companies with an existing sales and marketing organization and distribution system to market, sell and distribute our products or to commercialize a product ourselves. However, we may not be able to establish these sales and distribution relationships on acceptable terms, or at all, or may encounter difficulties in commercializing a product ourselves. For any of our product candidates that receive regulatory approval in the future and are not covered by our current collaboration agreements, we will need a partner in order to commercialize such products unless we establish independent sales, marketing and distribution capabilities with appropriate technical expertise and supporting infrastructure.

Collaborations with third parties regarding our programs may require us to relinquish material rights, including revenue from commercialization of our medicines, or to assume material ongoing development obligations that we would have to fund. These collaboration arrangements are complex and time-consuming to negotiate, and if we are unable to reach agreements with third-party collaborators, we may fail to meet our business objectives and our financial condition may be adversely affected. We face significant competition in seeking third-party collaborators. We may be unable to find third parties to pursue product collaborations on a timely basis or on acceptable terms. Furthermore, for any collaboration, we may not be able to control the amount of time and resources that our partners devote to our product candidates and our partners may choose to prioritize alternative programs or otherwise be unsuccessful in their efforts with respect to our products or product candidates. In addition, effective collaboration with a partner requires coordination to achieve complex and detail-intensive goals between entities that potentially have different priorities, capabilities and processes and successful navigation of the challenges such coordination entails. For example, Mylan has a substantial existing product portfolio and other considerations that influence its resource allocation, and other priorities and internal organizational processes that differ from our own. As a result of these differing interests and processes, Mylan may take actions that it believes are in its best interest but which might not be in the best interests of either us or our other shareholders. Our inability to successfully collaborate with third parties would increase our development costs and may cause us to choose not to continue development of certain product candidates, would limit the likelihood of successful commercialization of some of our product candidates, may cause us not to continue commercialization of our authorized products and could cause the price of our securities to fall.

***We depend on third parties in the conduct of our non-clinical and clinical studies for our product candidates.***

We depend on independent clinical investigators, contract research and manufacturing organizations and other third-party service providers in the conduct of our non-clinical and clinical studies for our product candidates. We rely heavily on these parties for execution of our non-clinical and clinical studies, and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that our clinical studies are conducted in accordance with good clinical, laboratory and manufacturing practices ("GxPs") and other regulations as required by the FDA and foreign regulatory authorities, and the applicable protocol. Failure by these parties to comply with applicable regulations and practices in conducting studies of our product candidates can result in a delay in our development programs or non-approval of our product candidates by regulatory authorities.

The FDA, and equivalent authorities in third countries, enforces GxPs and other regulations through periodic inspections of trial sponsors, clinical research organizations ("CROs"), principal investigators and trial sites. If we or any

of the third parties on which we have relied to conduct our clinical studies are determined to have failed to comply with GXP's (or other equivalent regulations outside the US), the study protocol or applicable regulations, the clinical data generated in our studies may be deemed unreliable. This could result in non-approval of our product candidates by the FDA, or equivalent authorities in other countries, or we, the FDA, or equivalent authorities in other countries may decide to conduct additional audits or require additional clinical studies, which would delay our development programs, could result in significant additional costs and cause the price of our securities to fall.

***We rely on a single source of supply for a number of our product candidates, and our business will be harmed if any of these single-source manufacturers are not able to satisfy demand and alternative sources are not available.***

We have limited in-house production capabilities for preclinical and clinical study purposes, and depend primarily on a number of third-party Active Pharmaceutical Ingredient ("API") and drug product manufacturers. We may not have long-term agreements with these third parties and our agreements with these parties may be terminable at will by either party at any time. If, for any reason, these third parties are unable or unwilling to perform, or if their performance does not meet regulatory requirements, we may not be able to locate alternative manufacturers or enter into acceptable agreements with them. Any inability to acquire sufficient quantities of API and drug product in a timely manner from these third parties could delay preclinical and clinical studies and prevent us from developing our product candidates in a cost-effective manner or on a timely basis. In addition, manufacturers of our API and drug product are subject to the FDA's current Good Manufacturing Practice ("cGMP") regulations and similar foreign standards and we do not have control over compliance with these regulations by our manufacturers.

Our manufacturing strategy presents the following additional risks:

- because of the complex nature of many of our compounds, our manufacturers may not be able to successfully manufacture our APIs and/or drug products in a cost-effective and/or timely manner and changing manufacturers for our APIs or drug products could involve lengthy technology transfer, validation and regulatory qualification activities for the new manufacturer;
- the processes required to manufacture certain of our APIs and drug products are specialized and available only from a limited number of third-party manufacturers;
- some of the manufacturing processes for our APIs and drug products have not been scaled to quantities needed for continued clinical studies or commercial sales, and delays in scale-up to higher quantities could delay clinical studies, regulatory submissions and commercialization of our product candidates; and
- because some of the third-party manufacturers are located outside of the US, there may be difficulties in importing our APIs and drug products or their components into the US as a result of, among other things, FDA import inspections, incomplete or inaccurate import documentation or defective packaging.

***We have a significant amount of debt, including our Non-Recourse 2033 Notes and Convertible Senior 2023 Notes, that are senior in capital structure and cash flow, respectively, to holders of our ordinary shares. Satisfying the obligations relating to our debt could adversely affect the amount or timing of distributions to our shareholders.***

As of December 31, 2019, we had \$521.0 million in total long-term liabilities outstanding, comprised primarily of \$235.3 million in net principal that remains outstanding under the Issuer's Non-Recourse 2033 Notes and \$230.0 million in principal that remains outstanding under our Convertible Senior 2023 Notes (together with the Non-Recourse 2033 Notes, the "Notes").

The Convertible Senior 2023 Notes are unsecured debt and are not redeemable by us prior to the maturity date except for certain changes in tax law. Holders of the Convertible Senior 2023 Notes may require us to purchase all or any portion of their notes at 100% of their principal amount, plus any unpaid interest, upon a fundamental change such as a change of control of us or the termination of trading of our ordinary shares in accordance with the indenture governing the Convertible Senior 2023 Notes.

Until the Non-Recourse 2033 Notes are paid in full, holders of the Non-Recourse 2033 Notes have a perfected security interest in the Issuer Class C Units that represent a 63.75% economic interest in any future payments that may be made by GSK to TRC under the strategic alliance agreement and under the portion of the collaboration agreement assigned to TRC by Innoviva (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters) relating to the GSK-Partnered Respiratory Programs, including the TRELEGY ELLIPTA program.

Through October 15, 2020, the terms of the Non-Recourse 2033 Notes provide that to the extent there are insufficient funds to satisfy the Issuer's scheduled quarterly interest obligations, the shortfall shall be added to the principal amount of the Non-Recourse 2033 Notes without a default or event of default occurring. The terms of the Non-Recourse 2033 Notes also provide that, at Theravance Biopharma's option, the quarterly interest payment obligations can be satisfied by making a capital contribution to the Issuer, but not for more than four (4) consecutive quarterly interest payment dates or for more than six (6) quarterly interest payment dates during the term of the notes. For the April 15, 2019 and July 15, 2019 interest payment dates, Theravance Biopharma R&D, Inc. (parent entity of Issuer) made a capital contribution to satisfy the interest payment obligations for these two scheduled payments while we arbitrated the dispute with Innoviva.

Satisfying the obligations of these Notes could adversely affect the amount or timing of any distributions to our shareholders. Two Company subsidiaries have entered into Note Purchase Agreements relating to the private placement of \$400,000,000 aggregate principal amount of Non-Recourse 2035 Notes. The proceeds from the issuance would be used to repay in full the remaining outstanding balance of Non-Recourse 2033 Notes and/or for other general purposes. Issuance of the Non-Recourse 2035 Notes is subject to the satisfaction of certain customary conditions. See "Item 8, Note 15. Subsequent Events" below for more information. In addition, we may further choose to satisfy, repurchase, or refinance any Non-Recourse 2035 Notes, to the extent allowable, through public or private equity or debt financings if we deem such financings are available on favorable terms. If any or all of the Convertible Senior 2023 Notes are not converted into our ordinary shares before the maturity date, we will have to pay the holders the full aggregate principal amount of the Convertible Senior 2023 Notes then outstanding. If the Non-Recourse 2033 Notes are not refinanced or paid in full, or if the Non-Recourse 2035 Notes are issued and not refinanced or paid in full, the holders of the Non-Recourse 2033 Notes or Non-Recourse 2035 Notes, as applicable, will have the right to foreclose on the Issuer Class C Units that represent a 63.75% economic interest in future royalties due on net sales of TRELEGY ELLIPTA and related assets, or Issuer II Class C Units (defined below), as applicable. If the Issuer Class C Units are foreclosed upon, we will lose any right to receive 75% of the future royalty payments made by GSK in connection with the net sales of TRELEGY ELLIPTA and related assets. Any of the above payments could have a material adverse effect on our cash position. Our failure to satisfy these obligations may result in a default under the applicable indenture governing these Notes, which could result in a default under certain of our other debt instruments, if any. Any such default would harm our business and the price of our securities could fall.

***Servicing our Convertible Senior 2023 Notes requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our debt. Additionally, holders may require us to repurchase our Convertible Senior 2023 Notes under certain circumstances, and we may not have sufficient cash to do so.***

Our ability to make interest or principal payments when due or to refinance the Convertible Senior 2023 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 sufficient to satisfy our obligations under the Convertible Senior 2023 Notes and any future indebtedness we may incur and to make necessary capital expenditures. In addition, the issuance of the Non-Recourse 2033 Notes reduced the cash available for us to make interest or principal payments on, or to refinance, the Convertible Senior 2023 Notes. We may be required to adopt one or more alternatives, such as reducing or delaying investments or capital expenditures, selling assets, refinancing or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance the Convertible Senior 2023 Notes or future 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 on desirable terms or at all, which could result in a default on the Convertible Senior 2023 Notes or future indebtedness.

The holders of the Convertible Senior 2023 Notes may have the right to require us to repurchase the Convertible Senior 2023 Notes upon the occurrence of a "fundamental change" such as a change of control of our

Company or the termination of trading of our ordinary shares, as defined in the indenture governing the Convertible Senior 2023 Notes. We may not have sufficient funds to repurchase the Convertible Senior 2023 Notes in cash or have the ability to arrange necessary financing on acceptable terms. Our failure to repurchase the Convertible Senior 2023 Notes when required would result in an event of default with respect to the Convertible Senior 2023 Notes. In addition, any acceleration of the repayment of the Convertible Senior 2023 Notes or future indebtedness after any applicable notice or grace periods could have a material adverse effect on our business, results of operations and financial condition.

***Our business and operations would suffer in the event of significant disruptions of information technology systems or security breaches.***

We rely extensively on computer systems to maintain information and manage our finances and business. In the ordinary course of business, we collect, store and transmit large amounts of confidential information (including but not limited to trade secrets or other intellectual property, proprietary business information and personal information) and it is critical that we maintain the confidentiality and integrity of such confidential information. Although we have security measures in place, our internal information technology systems and those of our CROs and other service providers, including cloud-based and hosted applications, data and services, are vulnerable to service interruptions and security breaches from inadvertent or intentional actions by our employees, service providers and/or business partners, from cyber-attacks by malicious third parties, and/or from, natural disasters, terrorism, war and telecommunication and electrical failures. Cyber-attacks are increasing in their frequency, sophistication, and intensity, and have become increasingly difficult to detect. Significant disruptions of information technology systems or security breaches could adversely affect our business operations and result in financial, legal, business and reputational harm to us, including significant liability and/or significant disruption to our business. If a disruption of information technology systems or security breach results in a loss of or damage to our data or regulatory applications, unauthorized access, use, or disclosure of, or the prevention of access to, confidential information, or other harm to our business, we could incur liability and reputational harm, we could be required to comply with federal and/or state breach notification laws and foreign law equivalents, we may incur legal expenses to protect our confidential information, the further development of our product candidates could be delayed and the price of our securities could fall. For example, the loss of clinical trial data from completed or ongoing clinical trials of our product candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. As another example, we may incur penalties imposed by the competent authorities in the EU Member States in case of breach of the EU rules governing the collection and processing of personal data, including unauthorized access to or disclosure of personal data. Although we have security and fraud prevention measures in place, we have been subject to immaterial payment fraud activity. In 2017, we filed a lawsuit (which has since been resolved) against a former employee for misappropriation of our confidential, proprietary and trade secret information. Moreover, there can be no assurance that such security measures will prevent service interruptions or security breaches that could adversely affect our business.

***If we lose key management or scientific personnel, or if we fail to attract and retain key employees, our ability to discover and develop our product candidates and commercialize our products, if any, will be impaired.***

We are highly dependent on principal members of our management team and scientific staff, and in particular, our Chief Executive Officer, Rick E Winningham, to operate our business. Mr. Winningham has significant pharmaceutical industry experience. The loss of Mr. Winningham's services could impair our ability to discover, develop and commercialize new medicines.

If we fail to retain our qualified personnel or replace them when they leave, we may be unable to continue our discovery, development and commercialization activities, which may cause the price of our securities to fall.

In addition, our US operating subsidiary's facility and most of its employees are located in northern California, headquarters to many other biotechnology and biopharmaceutical companies and many academic and research institutions. As a result, competition for certain skilled personnel in our market is intense. None of our employees have employment commitments for any fixed period of time and they all may leave our employment at will. If we fail to retain our qualified personnel or replace them when they leave, we may be unable to continue our development and commercialization activities and the price of our securities could fall.



***Global health and economic, political and social conditions may harm our ability to do business, increase our costs and negatively affect our stock price.***

Worldwide economic conditions remain uncertain due to the decision by the United Kingdom (“UK”) to initiate the formal procedure of withdrawal from the EU (often referred to as “Brexit”), current economic challenges in Asia, the coronavirus in China, and other disruptions to global and regional economies and markets.

Brexit has created significant uncertainty about the future relationship between the UK and the EU, including with respect to the laws and regulations that will apply as the UK determines which EU laws to replace or replicate in the event of a withdrawal. From a regulatory perspective, the UK’s withdrawal could bear significant complexity and risks. In addition, the exact terms of the UK’s withdrawal and the laws and regulations that will apply after the UK withdraws from the EU would affect manufacturing sites that hold an EU manufacturing authorization issued by the UK competent authorities.

In light of the fact that a significant portion of the regulatory framework in the UK is derived from EU laws, Brexit could materially impact the EU regulatory regime governing development, manufacture, importation, approval and commercialization of our product candidates in the UK or the EU. For example, there is a risk that the scope of a marketing authorization for a medicinal product granted by the European Commission or by the competent authorities of EU member states will not encompass the UK. In these circumstances, a separate authorization granted by the UK competent authorities will be required to place medicinal products on the UK market. In addition, our ability to rely on UK manufacturing sites to supply medicinal products intended for the EU market will depend on the terms of the UK’s withdrawal from the EU and, potentially, on the ability to obtain relevant exemptions under EU law to supply the EU market with medicinal products manufactured at UK-certified sites. There is also a risk that if batch release and quality control testing sites for our products are located only in the UK, manufacturers will be required to use sites in other EU member states to manufacture products for supply to the EU market. All of these changes, if they occur, could increase our costs and otherwise adversely affect our business. In addition, currency exchange rates for the British Pound and the Euro with respect to each other and to the US dollar have already been, and may be continue to be, negatively affected by Brexit, which could cause volatility in our quarterly financial results.

Further, development of our product candidates and/or regulatory approval may be delayed for other political events beyond our control. For example, a US federal government shutdown or budget sequestration, such as ones that occurred during 2013, 2018, and 2019, may result in significant reductions to the FDA’s budget, employees and operations, which may lead to slower response times and longer review periods, potentially affecting our ability to progress development of our product candidates or obtain regulatory approval for our product candidates. Further, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Our operations also depend upon favorable trade relations between the US and those foreign countries in which our materials suppliers have operations. A protectionist trade environment in either the US or those foreign countries in which we do business, such as a change in the current tariff structures, export compliance or other trade policies, may materially and adversely affect our operations.

External factors, such as potential terrorist attacks, acts of war, geopolitical and social turmoil or epidemics and other similar outbreaks in many parts of the world, could also prevent or hinder our ability to do business, increase our costs and negatively affect our stock price. For example, concerns about the Coronavirus are having an adverse effect upon the Chinese and the global economy and could adversely affect our business operations or the operations of our suppliers. Concerns about the Coronavirus may, for example, negatively affect the reliability and cost of transportation, negatively affect the desire and ability of our employees to travel, delay the enrollment of patients in our clinical trials by clinical trial sites located in impacted jurisdictions, disrupt the production capabilities of our suppliers (and, in particular, suppliers of drug product we need for the conduct of our clinical trials) adversely affect our ability to obtain adequate insurance at reasonable rates, and require us to take extra security precautions for our operations. These geopolitical, social and economic conditions could harm our business.

***Our US operating subsidiary's facility is located near known earthquake fault zones, and the occurrence of an earthquake, extremist attack or other catastrophic disaster could cause damage to our facilities and equipment, which could require us to cease or curtail operations.***

Our US operating subsidiary's facility is located in the San Francisco Bay Area near known earthquake fault zones and therefore will be vulnerable to damage from earthquakes. In October 1989, a major earthquake struck this area and caused significant property damage and a number of fatalities. We are also vulnerable to damage from other types of disasters, including power loss, attacks from extremist organizations, fire, floods, communications failures and similar events. If any disaster were to occur, our ability to operate our business could be seriously impaired. In addition, the unique nature of our research activities and of much of our equipment could make it difficult and costly for us to recover from this type of disaster. We may not have adequate insurance to cover our losses resulting from disasters or other similar significant business interruptions and we do not plan to purchase additional insurance to cover such losses due to the cost of obtaining such coverage. Any significant losses that are not recoverable under our insurance policies could seriously impair our business and financial condition, which could cause the price of our securities to fall.

***If YUPELRI does not continue to be accepted by physicians, patients, third-party payors, or the medical community in general, we may not receive significant additional revenues from sales of this product.***

The commercial success of YUPELRI depends upon its acceptance by physicians, patients, third-party payors and the medical community in general. YUPELRI may not be sufficiently accepted by these parties. YUPELRI competes with predominantly with short-acting nebulized bronchodilators used three to four times per day and the nebulized LAMA Lonhala™ Magnair™ (SUN-101/eFlow®) used twice per day. If YUPELRI's acceptance does not continue to grow, our business and financial results could be materially harmed.

***In collaboration with Mylan, we are responsible for marketing and sales of YUPELRI in the US, which subjects us to certain risks.***

We currently maintain a sales force in the US and plan to continue to augment our sales and marketing personnel to support our co-promotion obligations for YUPELRI under our agreement with Mylan. The risks of fulfilling our US co-promotion obligations to Mylan include:

- costs and expenses associated with maintaining an independent sales and marketing organization with appropriate technical expertise and supporting infrastructure, including third-party vendor logistics and consultant support, which costs and expenses could, depending on the scope and method of the marketing effort, exceed any product revenue for several years;
- our ability to retain effective sales and marketing personnel and medical science liaisons in the US;
- the ability of our sales and marketing personnel to obtain access to and educate adequate numbers of physicians about prescribing YUPELRI, in appropriate clinical situations; and
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines.

If we are not successful in maintaining an internal sales and marketing organization with appropriate experience, technical expertise, supporting infrastructure and the ability to obtain access to and educate adequate numbers of physicians about prescribing YUPELRI in appropriate clinical situations, we will have difficulty commercializing YUPELRI, which would adversely affect our business and financial condition and the price of our securities could fall.

***We are subject to extensive and ongoing regulation, oversight and other requirements by the FDA and failure to comply with these regulations and requirements may subject us to penalties that may adversely affect our financial condition or our ability to commercialize any approved products.***

Prescription drug advertising and promotion are closely scrutinized by the FDA, including substantiation of promotional claims, disclosure of risks and safety information, and the use of themes and imagery in advertising and

promotional materials. As with all companies selling and marketing products regulated by the FDA in the US, we are prohibited from promoting any uses of an approved product, such as YUPELRI, that are outside the scope of those uses that have been expressly approved by the FDA as safe and effective on the product's label.

The manufacturing, labeling, packaging, adverse event reporting, advertising, promotion and recordkeeping for an approved product remain subject to extensive and ongoing regulatory requirements. If we become aware of previously unknown problems with an approved product in the US or overseas or at a contract manufacturer's facilities, a regulatory authority may impose restrictions on the product, the contract manufacturers or on us, including requiring us to reformulate the product, conduct additional clinical studies, change the labeling of the product, withdraw the product from the market or require the contract manufacturer to implement changes to its facilities.

We are also subject to regulation by regional, national, state and local agencies, including the Department of Justice, the Federal Trade Commission, the Office of Inspector General of the US Department of Health and Human Services ("OIG") and other regulatory bodies with respect to any approved product, such as YUPELRI, as well as governmental authorities in those foreign countries in which any product is approved for commercialization. The Federal Food, Drug, and Cosmetic Act, the Public Health Service Act and other federal and state statutes and regulations govern to varying degrees the research, development, manufacturing and commercial activities relating to prescription pharmaceutical products, including non-clinical and clinical testing, approval, production, labeling, sale, distribution, import, export, post-market surveillance, advertising, dissemination of information and promotion. If we or any third parties that provide these services for us are unable to comply, we may be subject to regulatory or civil actions or penalties that could significantly and adversely affect our business.

Regulatory approval for our product candidates, if any, may include similar or other limitations on the indicated uses for which we can market our medicines or the patient population that may utilize our medicines, which may limit the market for our medicines or put us at a competitive disadvantage relative to alternative therapies.

Failure to satisfy required post-approval requirements and/or commitments may have implications for a product's approval and may carry civil monetary penalties. Any failure to maintain regulatory approval will materially limit the ability to commercialize a product or any future product candidates and if we fail to comply with FDA regulations and requirements, the FDA could potentially take a number of enforcement actions against us, including the issuance of untitled letters, warning letters, preventing the introduction or delivery of the product into interstate commerce in the US, misbranding charges, product seizures, injunctions, and civil monetary penalties, which would materially and adversely affect our business and financial condition and may cause the price of our securities to fall.

The risks identified in this risk factor relating to regulatory actions and oversight by agencies in the US and throughout the world also apply to the commercialization of any partnered products by our collaboration partners and those commercializing products with respect to which we have an economic interest or right to receive royalties, including GSK and Cumberland, and such regulatory actions and oversight may limit those parties' ability to commercialize such products, which could materially and adversely affect our business and financial condition, and which may cause the price of our securities to fall.

***We and/or our collaboration partners and those commercializing products with respect to which we have an economic interest or right to receive royalties may face competition from companies seeking to market generic versions of any approved products in which we have an interest, such as TRELEGY ELLIPTA or YUPELRI.***

Under the Drug Price Competition and Patent Term Restoration Act of 1984, a company may submit an abbreviated new drug application ("ANDA") under section 505(j) of the Federal Food, Drug, and Cosmetic Act to market a generic version of an approved drug. Because a generic applicant does not conduct its own clinical studies, but instead relies on the FDA's finding of safety and effectiveness for the approved drug, it is able to introduce a competing product into the market at a cost significantly below that of the original drug. Although we have multiple patents protecting YUPELRI until at least 2025 that are listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book, and those commercializing products with respect to which we have an economic interest or right to receive royalties similarly have patents protecting their products, such as TRELEGY ELLIPTA and VIBATIV, generic applicants could potentially submit "paragraph IV certifications" to FDA

stating that such patents are invalid or will not be infringed by the applicant's product. We have not received any such paragraph IV notifications nor are we aware of any with respect to products in which we have an economic interest or right to receive royalties, but if any competitors successfully challenge the patents related to these products, we and/or our collaboration partners and those commercializing products with respect to which we have an economic interest or right to receive royalties would face substantial competition. If we are not able to compete effectively against such future competition, our business will not grow, our financial condition and operations will suffer and the price of our securities could fall.

For additional discussion of the risk of generic competition to YUPELRI, please see the following risk factor below *"If our efforts to protect the proprietary nature of the intellectual property related to our technologies are not adequate, we may not be able to compete effectively in our current or future markets."*

***We may be treated as a US corporation for US federal income tax purposes.***

For US federal income tax purposes, a corporation generally is considered tax resident in the place of its incorporation. Theravance Biopharma is incorporated under Cayman Islands law and established tax residency in Ireland effective July 1, 2015. Therefore, it should be a non-US corporation under this general rule. However, Section 7874 of the Internal Revenue Code of 1986, as amended (the "Code"), contains rules that may result in a foreign corporation being treated as a US corporation for US federal income tax purposes. The application of these rules is complex and there is little guidance regarding certain aspects of their application.

Under Section 7874 of the Code, a corporation created or organized outside the US will be treated as a US corporation for US federal tax purposes if (i) the foreign corporation directly or indirectly acquires substantially all of the properties held directly or indirectly by a US corporation, (ii) the former shareholders of the acquired US corporation hold at least 80% of the vote or value of the shares of the foreign acquiring corporation by reason of holding stock in the US acquired corporation, and (iii) the foreign corporation's "expanded affiliated group" does not have "substantial business activities" in the foreign corporation's country of incorporation relative to its expanded affiliated group's worldwide activities. For this purpose, "expanded affiliated group" generally means the foreign corporation and all subsidiaries in which the foreign corporation, directly or indirectly, owns more than 50% of the stock by vote and value, and "substantial business activities" generally means at least 25% of employees (by number and compensation), assets and gross income of our expanded affiliated group are based, located and derived, respectively, in the country of incorporation.

We do not expect to be treated as a US corporation under Section 7874 of the Code, because we do not believe that the assets contributed to us by Innoviva constituted "substantially all" of the properties of Innoviva (as determined on both a gross and net fair market value basis). However, the Internal Revenue Service may disagree with our conclusion on this point and assert that, in its view, the assets contributed to us by Innoviva did constitute "substantially all" of the properties of Innoviva. In addition, there could be legislative proposals to expand the scope of US corporate tax residence and there could be changes to Section 7874 of the Code or the Treasury Regulations promulgated thereunder that could apply retroactively and could result in Theravance Biopharma being treated as a US corporation.

If it were determined that we should be treated as a US corporation for US federal income tax purposes, we could be liable for substantial additional US federal income tax on our post-Spin-Off taxable income. In addition, though we have no current plans to pay any dividends, payments of any dividends to non-US holders may be subject to US withholding tax.

***Taxing authorities may challenge our structure and transfer pricing arrangements.***

We are incorporated in the Cayman Islands, maintain subsidiaries in the Cayman Islands, the US, the UK and Ireland, and effective July 1, 2015, we migrated our tax residency from the Cayman Islands to Ireland. Due to economic and political conditions, various countries are actively considering changes to existing tax laws. We cannot predict the form or timing of potential legislative changes that could have a material adverse impact on our results of operations. We are aware that Ireland has implemented certain tax law changes and is expected to implement additional tax law changes to comply with the European Union Anti-Tax Avoidance Directives. These changes include the first ever Irish controlled foreign company ("CFC") rules which came into effect on January 1, 2019. Due to provisions in *Finance Bill 2019*,

Ireland will also implement certain transfer pricing rule changes, with effect from 2020. We are continuing to evaluate and monitor the applicability of the CFC rules published in *Finance Act 2018*, but our current assessment, based on the rules and guidance published to date, is that the rules are unlikely to have a material impact on our operations. Proposed statutory language has been provided for transfer pricing rule changes, and we believe that the transfer pricing rules are unlikely to have a material impact on our operations. New UK tax legislation was introduced by the *Finance Act 2019* (“FA 2019”) that imposes a tax related to offshore receipts in respect of intangible property held in low tax jurisdictions (“ORIP”) and became effective in April 2019. FA 2019 also included a power for amendments to the ORIP legislation to be made by regulation by December 31, 2019. On October 15, 2019, the UK published further guidance intended to facilitate the administration of the ORIP regime. However, a number of issues and areas of uncertainty remain. We have reviewed the original legislation in conjunction with the guidance and believe that the ORIP regime may apply to certain cash receipts. Based on this analysis, we believe that the ORIP charge on UK-derived cash receipts through 2019 is not material, and we will continue to refine our ORIP conclusions as guidance evolves.

In addition, significant judgment is required in determining our worldwide provision for income taxes. Various factors may have favorable or unfavorable effects on our income tax rate including, but not limited to the performance of certain functions and ownership of certain assets in tax-efficient jurisdictions such as the Cayman Islands and Ireland, together with intra-group transfer pricing agreements. Taxing authorities may challenge our structure and transfer pricing arrangements through an audit or lawsuit. Responding to or defending such a challenge could be expensive and consume time and other resources, and divert management’s time and focus from operating our business. We cannot predict whether taxing authorities will conduct an audit or file a lawsuit challenging this structure, the cost involved in responding to any such audit or lawsuit, or the outcome. We may be required to pay taxes for prior periods, interest, fines or penalties, and may be obligated to pay increased taxes in the future which could result in reduced cash flows and have a material adverse effect on our business, financial condition and growth prospects.

***We were a passive foreign investment company, or “PFIC,” for 2014, but we were not a PFIC from 2015 through 2019, and we do not expect to be a PFIC for the foreseeable future.***

For US federal income tax purposes, we generally would be classified as a PFIC for any taxable year if either (i) 75% or more of our gross income (including gross income of certain 25% or more owned corporate subsidiaries) is “passive income” (as defined for such purposes) or (ii) the average percentage of our assets (including the assets of certain 25% or more owned corporate subsidiaries) that produce passive income or that are held for the production of passive income is at least 50%. In addition, whether our company will be a PFIC for any taxable year depends on our assets and income over the course of each such taxable year and, as a result, cannot be predicted with certainty until after the end of the year.

Based upon our assets and income during the course of 2014, we believe that our company and one of our company’s wholly-owned subsidiaries, Theravance Biopharma R&D, Inc. was a PFIC for 2014. Based upon our assets and income from 2015 through 2019, we do not believe that our company is a PFIC during these four years. We do not expect to be a PFIC for the foreseeable future based on our current business plans and current business model. For any taxable year (or portion thereof) in which our company is a PFIC that is included in the holding period of a US holder, the US holder is generally subject to additional US federal income taxes plus an interest charge with respect to certain distributions from Theravance Biopharma or gain recognized on a sale of Theravance Biopharma shares. Similar rules would apply with respect to distributions from or gain recognized on an indirect sale of Theravance Biopharma Ireland Limited. US holders of our ordinary shares may have filed an election with respect to Company shares held at any time during 2014 to be treated as owning an interest in a “qualified electing fund” (“QEF”) or to “mark to market” their ordinary shares to avoid the otherwise applicable interest charge consequences of PFIC treatment with respect to our ordinary shares. A foreign corporation will not be treated as a QEF for any taxable year in which such foreign corporation is not treated as a PFIC. QEF and mark to market elections generally apply to the taxable year for which the election is made and all subsequent taxable years unless the election is revoked with consent of the Secretary of Treasury. US holders of our ordinary shares should consult their tax advisers regarding the tax reporting implications with respect to any QEF and mark to market elections made with respect to our company and with respect to their indirect interests in Theravance Biopharma R&D, Inc.

***If we are unable to maintain effective internal controls, our business, financial position and results of operations could be adversely affected.***

If we are unable to maintain effective internal controls, our business, financial position and results of operations could be adversely affected. We are subject to the reporting and other obligations under the Exchange Act, including the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, which require annual management assessments of the effectiveness of our internal control over financial reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the US. Any failure to achieve and maintain effective internal controls could have an adverse effect on our business, financial position and results of operations. In addition, our independent registered public accounting firm is required to attest to the effectiveness of our internal control over financial reporting annually. If our independent registered public accounting firm is unable to attest to the effectiveness of our internal control over financial reporting, investor confidence in our reported results will be harmed and the price of our securities may fall. These reporting and other obligations place significant demands on our management and administrative and operational resources, including accounting resources.

***Agreements entered into with or for the benefit of GSK in connection with the Spin-Off may significantly restrict our business and affairs.***

On March 3, 2014, in connection with the Spin-Off, we, Innoviva and GSK entered into a number of agreements that may significantly restrict our business and affairs. In particular, we, Innoviva and GSK entered into the Master Agreement which, among other things, requires GSK's consent to make any changes to (i) a Separation and Distribution Agreement and ancillary agreements that would, individually or in the aggregate, reasonably be expected to adversely affect GSK in any material respect or (ii) the TRC LLC Agreement, which consent is not to be unreasonably withheld, conditioned or delayed, provided that GSK may withhold, condition or delay such consent in its sole discretion with respect to certain sections of the TRC LLC Agreement and any changes to the governance structure of TRC, the confidentiality restrictions, the consent rights, and the transfer restrictions in the TRC LLC Agreement. We and GSK also entered into (i) the Governance Agreement that expired on December 31, 2017, (ii) a registration rights agreement that gives GSK certain registration rights with respect to our ordinary shares held by GSK and (iii) an extension agreement that extends to us certain restrictive covenants similar to those applicable to Innoviva under the GSK Agreements. There can be no assurance that these restrictions will not materially harm our business, particularly given that GSK's interests may not be aligned with the interests of our business or our other shareholders.

***Certain of our directors and officers may have actual or potential conflicts of interest because of their equity ownership in Innoviva, which actual or potential conflicts may harm our business, prospects and financial condition and result in the diversion of corporate opportunities to Innoviva.***

Certain of our directors and officers hold shares of Innoviva's common stock or rights to acquire such shares, and these holdings may be significant for some of these individuals compared to their total assets. This ownership of Innoviva common stock by certain of our directors and officers may create, or may create the appearance of, conflicts of interest when these directors and officers are faced with decisions that could have different implications for Innoviva and for us. For example, potential or actual conflicts could arise relating to: our relationship with Innoviva, including Innoviva's and our respective rights and obligations under agreements entered into in connection with the Spin-Off; Innoviva's management of TRC, particularly given that we and Innoviva have different economic interests in TRC; and corporate opportunities that may be available to both companies in the future. Although we and Innoviva have implemented policies and procedures to identify and properly address such potential and actual conflicts of interest, there can be no assurance that, when such conflicts are resolved in accordance with applicable laws, such conflicts of interest will not harm our business, prospects and financial condition and result in the diversion of corporate opportunities to Innoviva.

***If we are required to indemnify Innoviva or Cumberland, or if we are not able to enforce our indemnification rights against Innoviva or Cumberland, our business prospects and financial condition may be harmed.***

We agreed to indemnify Innoviva from and after the Spin-Off with respect to (i) all debts, liabilities and obligations transferred to us in connection with the Spin-Off (including our failure to pay, perform or otherwise promptly discharge any such debts, liabilities or obligations after the Spin-Off), (ii) any misstatement or omission of a material fact resulting in a misleading statement in our Information Statement distributed to Innoviva stockholders in connection with the Spin-Off and (iii) any breach by us of certain agreements entered into with Innoviva in connection with the Spin-Off (namely, the Separation and Distribution Agreement, a Transition Services Agreement, an Employee Matters Agreement, a Tax Matters Agreement, and a Facility Sublease Agreement). We are not aware of any existing indemnification obligations at this time, but any such indemnification obligations that may arise could be significant. Under the terms of the Separation and Distribution Agreement, Innoviva agreed to indemnify us from and after the Spin-Off with respect to (i) all debts, liabilities and obligations retained by Innoviva after the Spin-Off (including its failure to pay, perform or otherwise promptly discharge any such debts, liabilities or obligations after the Spin-Off) and (ii) any breach by Innoviva of the Separation and Distribution Agreement, the Transition Services Agreement, the Employee Matters Agreement, the Tax Matters Agreement, and the Facility Sublease Agreement. Our and Innoviva's ability to satisfy these indemnities, if called upon to do so, will depend upon our and Innoviva's future financial strength. If we are required to indemnify Innoviva, or if we are not able to enforce our indemnification rights against Innoviva, our business prospects and financial condition may be harmed.

In addition, the agreement relating to the sale of VIBATIV to Cumberland contains indemnification obligations of both us and Cumberland. If we are required to indemnify Cumberland or if we are unable to enforce our indemnification rights against Cumberland for any reason, our business and financial condition may be harmed.

**RISKS RELATED TO LEGAL AND REGULATORY UNCERTAINTY**

***If our efforts to protect the proprietary nature of the intellectual property related to our technologies are not adequate, we may not be able to compete effectively in our current or future markets.***

We rely upon a combination of patents, patent applications, trade secret protection and confidentiality agreements to protect the intellectual property related to our technologies. Any involuntary disclosure to or misappropriation by third parties of this proprietary information could enable competitors to quickly duplicate or surpass our technological achievements, thus eroding our competitive position in our market. The status of patents in the biotechnology and pharmaceutical field involves complex legal and scientific questions and is very uncertain. As of December 31, 2019, we owned 445 issued US patents and 1,590 granted foreign patents, as well as additional pending US and foreign patent applications. Our patent applications may be challenged or fail to result in issued patents and our existing or future patents may be invalidated or be too narrow to prevent third parties from developing or designing around these patents. If the sufficiency of the breadth or strength of protection provided by our patents with respect to a product candidate is threatened, it could dissuade companies from collaborating with us to develop product candidates and threaten our ability to commercialize products. Further, if we encounter delays in our clinical trials or in obtaining regulatory approval of our product candidates, the patent lives of the related product candidates would be reduced.

In addition, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable, for processes for which patents are difficult to enforce and for any other elements of our drug discovery and development processes that involve proprietary know-how, information and technology that is not covered by patent applications. Although we require our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information and technology to enter into confidentiality agreements, we cannot be certain that this know-how, information and technology will not be misappropriated, disclosed or used for unauthorized purposes or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Further, the laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the US. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the US and abroad. If we are unable to prevent material disclosure of the intellectual property related to our technologies to third parties, we will not be able to establish or, if established, maintain a competitive advantage in our market, which could materially adversely affect our business, financial condition and results of operations, which could cause the price of our securities to fall.

***Litigation to protect or defend our intellectual property or third-party claims of intellectual property infringement would require us to divert resources and may prevent or delay our drug discovery and development efforts.***

Our commercial success depends in part on us and our partners not infringing the patents and proprietary rights of third parties. Third parties may assert that we or our partners are using their proprietary rights without authorization. There are third-party patents that may cover materials or methods for treatment related to our product candidates. At present, we are not aware of any patent infringement claims with merit that would adversely and materially affect our ability to develop our product candidates, but nevertheless the possibility of third-party allegations cannot be ruled out. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Furthermore, parties making claims against us or our partners may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our product candidates. Defense against these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business.

In the event of a successful claim of infringement against us, we may have to pay substantial damages, obtain one or more licenses from third parties or pay royalties. In addition, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates, and we have done so from time to time. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize one or more of our product candidates, which could harm our business significantly.

In addition, in the future we could be required to initiate litigation to enforce our proprietary rights against infringement by third parties, prevent the unauthorized use or disclosure of our trade secrets and confidential information, or defend the validity of our patents. For example, in 2017, we filed a lawsuit against a former employee for misappropriation of certain of our confidential, proprietary and trade secret information. While this litigation has since been resolved, prosecution of claims to enforce or defend our rights against others involve substantial litigation expenses and divert substantial employee resources from our business but may not result in adequate remedy to us or sufficiently mitigate the harm to our business caused by any intellectual property infringement, unauthorized access, use or disclosure of trade secrets. If we fail to effectively enforce our proprietary rights against others, our business will be harmed and the price of our securities could fall.

***If the efforts of our partners or future partners to protect the proprietary nature of the intellectual property related to collaboration assets are not adequate, the future commercialization of any medicines resulting from collaborations could be delayed or prevented, which would materially harm our business and could cause the price of our securities to fall.***

The risks identified in the two preceding risk factors may also apply to the intellectual property protection efforts of our partners or future partners and to GSK with respect to the GSK-Partnered Respiratory Programs in which we hold an economic interest. To the extent the intellectual property protection of any partnered assets are successfully challenged or encounter problems with the US Patent and Trademark Office or other comparable agencies throughout the world, the future commercialization of these potential medicines could be delayed or prevented. Any challenge to the intellectual property protection of a late-stage development asset, particularly those of the GSK-Partnered Respiratory Programs in which we hold an economic interest, could harm our business and cause the price of our securities to fall.

***Product liability and other lawsuits could divert our resources, result in substantial liabilities and reduce the commercial potential of our medicines.***

The risk that we may be sued on product liability claims is inherent in the development and commercialization of pharmaceutical products. Side effects of, or manufacturing defects in, products that we or our partners develop or commercialize could result in the deterioration of a patient's condition, injury or even death. Once a product is approved for sale and commercialized, the likelihood of product liability lawsuits tends to increase. Claims may be brought by individuals seeking relief for themselves or by individuals or groups seeking to represent a class, asserting injuries based both on potential adverse effects described in the label as well as adverse events not yet observed. We also face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials. In addition, changes in laws outside the US are expanding our potential liability for injuries that occur during clinical trials. Product liability claims could harm our reputation, regardless of the merit or ultimate success of the claim, which may



adversely affect our and our partners' ability to commercialize our products and cause the price of our securities to fall. These lawsuits may divert our management from pursuing our business strategy and may be costly to defend. In addition, if we are held liable in any of these lawsuits, we may incur substantial liabilities and may be forced to limit or forgo further commercialization of the applicable products.

Although we maintain general liability and product liability insurance, this insurance may not fully cover potential liabilities and we cannot be sure that our insurer will not disclaim coverage as to a future claim. In addition, inability to obtain or maintain sufficient insurance coverage at an acceptable cost or to otherwise protect against potential product liability claims could prevent or inhibit the commercial production and sale of our products, which could adversely affect our business.

We may also be required to prosecute or defend general commercial, intellectual property, securities and other lawsuits. Litigation typically involves substantial expenses and diverts substantial employee resources from our business. The cost of defending any product liability litigation or engaging in any other legal proceeding, even if resolved in our favor, could be substantial and uncertainties resulting from the initiation and continuation of the litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace and achieve our business goals.

***If we fail to comply with data protection laws and regulations, we could be subject to government enforcement actions (which could include civil or criminal penalties), private litigation and/or adverse publicity, which could negatively affect our operating results and business.***

We are subject to data protection laws and regulations (i.e., laws and regulations that address privacy and data security). In the US, numerous federal and state laws and regulations, including state data breach notification laws, state health information privacy laws, and federal and state consumer protection laws (e.g., Section 5 of the FTC Act), govern the collection, use, disclosure, and protection of health-related and other personal information. In California, the California Consumer Privacy Act ("CCPA") took effect on January 1, 2020. The CCPA establishes certain requirements for data use and sharing transparency and creates new data privacy rights for consumers. These laws and regulations are evolving and subject to interpretation, and may impose limitations on our activities or otherwise adversely affect our business. Failure to comply with data protection laws and regulations could result in government enforcement actions and create liability for us (which could include civil and/or criminal penalties), private litigation and/or adverse publicity that could negatively affect our operating results and business. 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 the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act ("HIPAA"). Although we are not directly subject to HIPAA—other than 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. HIPAA generally requires that healthcare providers and other covered entities obtain written authorizations from patients prior to disclosing protected health information of the patient (unless an exception to the authorization requirement applies). If authorization is required and the patient fails to execute an authorization or the authorization fails to contain all required provisions, then we may not be allowed access to and use of the patient's information and our research efforts could be impaired or delayed. Furthermore, use of protected health information that is provided to us pursuant to a valid patient authorization is subject to the limits set forth in the authorization (e.g., for use in research and in submissions to regulatory authorities for product approvals). In addition, HIPAA does not replace federal, state, international or other laws that may grant individuals even greater privacy protections.

EU Member States and other jurisdictions where we operate have adopted data protection laws and regulations, which impose significant compliance obligations. For example, the General Data Protection Regulation ("GDPR") which became applicable on May 25, 2018, replacing the EU Data Protection Directive, imposes strict obligations and restrictions on the ability to collect, analyze and transfer personal data, including health data from clinical trials and adverse event reporting.

Switzerland has adopted laws that impose restrictions and obligations similar to the GDPR. These obligations and restrictions concern, in particular, the consent of the individuals to whom the personal data relate, the information provided to the individuals, the transfer of personal data out of the European Economic Area ("EEA") or Switzerland,

security breach notifications, security and confidentiality of the personal data, as well as substantial potential fines for breaches of the data protection obligations. Data protection authorities from the different EU Member States may interpret the GDPR and applicable related national laws differently and impose requirements additional to those provided in the GDPR. In addition, guidance on implementation and compliance practices may be updated or otherwise revised, which adds to the complexity of processing personal data in the EU. When processing personal data of subjects in the EU, we have to comply with the applicable data protection laws. In particular, as we rely on services providers processing personal data of subjects in the EU, we have to enter into suitable contract terms with such providers and receive sufficient guarantees that such providers meet the requirements of the applicable data protection laws, particularly the GDPR which imposes specific and relevant obligations.

Legal mechanisms to allow for the transfer of personal data from the EEA to the US have been challenged in the European Court of Justice, which generally increases uncertainty around compliance with EU privacy law requirements as these relate to transfer of data from the EU to the US. In 2016, the European Commission and the US Department of Commerce (“DOC”) put in place the EU-US “Privacy Shield,” which has been relied on by some US companies since that time to transfer data to the US, and, in its third annual review of the Privacy Shield in October 2019, the European Commission concluded that the U.S. continues to ensure an adequate level of protection for personal data transferred under the Privacy Shield. In addition, the DOC increased its monitoring and surveillance activities and introduced new oversight procedures and will increase pressure on companies to comply with Privacy Shield. However, in October 2016, an action for annulment was brought by three French digital rights advocacy groups, which is still pending before the General Court of the European Court of Justice. The US was admitted as an intervener in the action in 2018. If the European Court of Justice invalidates the Privacy Shield, it will no longer be possible to rely on the Privacy Shield certification to support transfer of personal data from the EU to entities in the US. Adherence to the Privacy Shield is not, however, mandatory. US-based companies are permitted to rely either on their adherence to the Privacy Shield or on the other authorized means and procedures to transfer personal data provided by the GDPR.

In addition, the privacy and data security landscape in the EU continues to remain in flux. The agreement that will hopefully be concluded between the EU and the UK following the UK’s withdrawal from the EU on January 31, 2020 may require organizations to revisit the way they transfer personal data from and to the UK. The GDPR has introduced additional data protection obligations that can have specific impact on the conduct of clinical trials in the EEA. This includes obligations concerning the rights of patients in relation to their personal data collected during the clinical trials and the need to conclude arrangements with clinical trials sites concerning data processing activities. Any perceived failure to ensure protection of patients’ rights during clinical trials or to ensure that sites fulfil obligations imposed by GDPR concerning their related processing activities could undermine the validity of the results of these clinical trials.

If we or our vendors fail to comply with applicable data privacy laws, or if the legal mechanisms we or our vendors rely upon to allow for the transfer of personal data from the EEA or Switzerland to the US (or other countries not considered by the European Commission to provide an adequate level of data protection) are not considered adequate, we could be subject to government enforcement actions and significant penalties against us. Moreover, our business could be adversely impacted if our ability to transfer personal data outside of the EEA or Switzerland to the US is restricted, which could adversely impact our operating results.

***Changes in healthcare law and implementing regulations, including government restrictions on pricing and reimbursement, as well as healthcare policy and other healthcare payor cost-containment initiatives, may negatively impact us, our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties.***

The continuing efforts of the government, insurance companies, managed care organizations and other payors of health care costs to contain or reduce costs of health care may adversely affect us, our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties in regard to one or more of the following:

- the ability to set and collect a price believed to be reasonable for products;
- the ability to generate revenues and achieve profitability; and

- the availability of capital.

The pricing and reimbursement environment for products may change in the future and become more challenging due to, among other reasons, policies advanced by the current or new presidential administrations, federal agencies, new healthcare legislation passed by Congress or fiscal challenges faced by all levels of government health administration authorities. Among policy makers and payors in the US and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and expanding access to healthcare. In the US, the pharmaceutical industry has been a particular focus of these efforts and has been and may in the future be significantly affected by major legislative initiatives. For instance, in the fourth quarter of 2018, the Centers for Medicare & Medicaid Services (“CMS”), the federal agency that administers the Medicare and Medicaid programs, released an advance notice of proposed rule-making to solicit feedback on a potential change in the way Medicare Part B pays for certain physician-administered drugs. Under Part B’s current reimbursement policy, for most drugs, Medicare pays providers the average sales price of the drug plus 6% (reduced to 4.3% as a result of sequestration). CMS is considering a methodology that would more closely align payment for these drugs with prices in certain countries (such as Canada, the UK, Japan, and Germany), allow private-sector vendors to negotiate prices, and pay providers a flat add-on payment not tied to the price of the drug. We expect we, our collaboration partners or those commercializing products with respect to which we have an economic interest or right to receive royalties may experience pricing pressures in connection with the sale of drug products, due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative enactments.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (together the “Healthcare Reform Act”), is a sweeping measure intended to expand healthcare coverage within the US, primarily through the imposition of health insurance mandates on employers and individuals, the provision of subsidies to eligible individuals enrolled in plans offered on the health insurance exchanges, and expansion of the Medicaid program. This law has substantially changed the way healthcare is financed by both governmental and private insurers, and has significantly impacted the pharmaceutical industry. The Healthcare Reform Act contains a number of provisions that impact our business and operations, including those governing enrollment in federal healthcare programs, reimbursement changes, benefits for patients within a coverage gap in the Medicare Part D prescription drug program (commonly known as the “donut hole”), rules regarding prescription drug benefits under the health insurance exchanges, changes to the Medicare Drug Rebate program, expansion of the Public Health Service Act’s 340B drug pricing program, fraud and abuse and enforcement. These changes have impacted previously existing government healthcare programs and have resulted in the development of new programs, including Medicare payment for performance initiatives and improvements to the physician quality reporting system and feedback program.

In particular, CMS issued final regulations to implement the changes to the Medicaid Drug Rebate program under the Healthcare Reform Act. These regulations became effective on April 1, 2016. Congress could enact additional legislation that further increases Medicaid drug rebates or other costs and charges associated with participating in the Medicaid Drug Rebate program. The issuance of regulations and coverage expansion by various governmental agencies relating to the Medicaid Drug Rebate program has increased and will continue to increase the costs and the complexity of compliance, has been and will be time-consuming to implement, and could have a material adverse effect on results of operations for us, our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties, particularly if CMS challenges the approach we take in our implementation of the final regulation.

Some states have elected not to expand their Medicaid programs by raising the income limit to 133% of the federal poverty level, as is permitted under the Healthcare Reform Act. For each state that does not choose to expand its Medicaid program, there may be fewer insured patients overall, which could impact the sales, business and financial condition of us, our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties. Where Medicaid patients receive insurance coverage under any of the new options made available through the Healthcare Reform Act, manufacturers may be required to pay Medicaid rebates on drugs used under these circumstances, which could impact manufacturer revenues.

Certain provisions of the Healthcare Reform Act have been subject to judicial challenges as well as efforts to repeal or replace them or to alter their interpretation or implementation. For example, the Tax Cuts and Jobs Act enacted

on December 22, 2017 (the “Tax Act”), eliminated the shared responsibility payment for individuals who fail to maintain minimum essential coverage under section 5000A of the Internal Revenue Code of 1986, commonly referred to as the individual mandate, effective January 1, 2019. In December 2018, a United States District Court Judge for the Northern District of Texas ruled (i) that the “individual mandate” was unconstitutional as a result of the associated tax penalty being repealed by Congress as part of the Tax Act; and (ii) the individual mandate is not severable from the rest of the ACA, and as a result the entire Healthcare Reform Act is invalid. On December 18, 2019, the US Court of Appeals for the Fifth Circuit affirmed the district court’s decision that the individual mandate is unconstitutional, but remanded the case to the district court to reconsider the severability question. It is unclear how the ultimate decision in this case, or other efforts to repeal, replace, or invalidate the Healthcare Reform Act or its implementing regulations, or portions thereof, will affect the Healthcare Reform Act or our business. Additional legislative changes to and regulatory changes under the Healthcare Reform Act remain possible, but the nature and extent of such potential additional changes are uncertain at this time. We expect that the Healthcare Reform Act, its implementation, efforts to repeal or replace, or invalidate the Healthcare Reform Act, or portions thereof, and other healthcare reform measures that may be adopted in the future, could have a material adverse effect on our industry generally and on the ability of us, our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties to maintain or increase sales of existing products or to successfully commercialize product candidates, if approved.

In addition, there have been proposals to modify the Medicare Part D benefit, including by imposing federally-mandated rebates on all drugs dispensed to Medicare Part D enrollees or on only those drugs dispensed to certain groups of lower income beneficiaries. If any of these proposals are adopted including any that result in additional rebates, this could have a negative impact on revenues for our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties, which could impact our revenues.

On August 2, 2011, the Budget Control Act of 2011, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals for spending reductions. The Joint Select Committee did not achieve a targeted deficit reduction, which triggered the legislation’s automatic reductions. In concert with subsequent legislation, this has resulted in aggregate reductions to Medicare payments to providers of, on average, 2% per fiscal year through 2027 unless Congress takes additional action. As long as these cuts remain in effect, they could adversely impact payment for any products that are reimbursed under Medicare. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for product or additional pricing pressures for our collaboration partners, or those commercializing products with respect to which we have an economic interest or right to receive royalties, which could impact our revenues.

***If we failed to comply with our reporting and payment obligations under the Medicaid Drug Rebate program or other governmental pricing 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.***

Prior to the sale of VIBATIV to Cumberland, we had certain price reporting obligations to the Medicaid Drug Rebate program and other governmental pricing programs, and we had obligations to report average sales price under the Medicare program. Following the consummation of the transaction with Cumberland, our price reporting obligations related to VIBATIV have been transitioned to Cumberland, and price reporting obligations for YUPELRI reside with Mylan. However, we retain liability related to price reporting for VIBATIV for historic periods.

Under the Medicaid Drug Rebate program, a manufacturer is required to pay a rebate to each state Medicaid program for its covered outpatient drugs that are dispensed to Medicaid beneficiaries and paid for by a state Medicaid program as a condition of having federal funds being made available to the states for our drugs under Medicaid and Medicare Part B. Those rebates are based on pricing data reported by the manufacturer on a monthly and quarterly basis to CMS, the federal agency that administers the Medicaid Drug Rebate program. These data include the average manufacturer price and, in the case of innovator products, the best price for each drug which, in general, represents the lowest price available from the manufacturer to any entity in the US in any pricing structure, calculated to include all sales and associated rebates, discounts and other price concessions.

Federal law requires that any company that participates in the Medicaid Drug Rebate program also participate in the Public Health Service's 340B drug pricing program in order for federal funds to be available for the manufacturer's drugs under Medicaid and Medicare Part B. The 340B program requires participating manufacturers to agree to charge no more than the 340B "ceiling price" for the manufacturer's covered outpatient drugs to a variety of community health clinics and other entities that receive health services grants from the Public Health Service, as well as hospitals that serve a disproportionate share of low-income patients. Manufacturers also are required to report their 340B ceiling prices to HRSA on a quarterly basis. A final regulation regarding the calculation of the 340B ceiling price and the imposition of civil monetary penalties on manufacturers that knowingly and intentionally overcharge covered entities became effective on January 1, 2019.

Federal law also requires that a company that participates in the Medicaid Drug Rebate program report average sales price information each quarter to CMS for certain categories of drugs that are paid under the Medicare Part B program. Manufacturers calculate the average sales price based on a statutorily defined formula as well as regulations and interpretations of the statute by CMS. CMS uses these submissions to determine payment rates for drugs under Medicare Part B.

Pricing and rebate calculations vary across products and programs, are complex, and are often subject to interpretation by the manufacturer, governmental or regulatory agencies and the courts. A manufacturer that becomes aware that its Medicaid reporting for a prior quarter was incorrect, or has changed as a result of recalculation of the pricing data, is obligated to resubmit the corrected data for up to three years after those data originally were due. Such restatements and recalculations increase the costs for complying with the laws and regulations governing the Medicaid Drug Rebate program and could result in an overage or underage in our rebate liability for past quarters. Price recalculations also may affect the 340B ceiling price.

We are liable for errors associated with our submission of pricing data. In addition to retroactive rebates and the potential for 340B program refunds, if we are found to have knowingly submitted any false price information to the government, we may be liable for significant civil monetary penalties per item of false information. If we are found to have made a misrepresentation in the reporting of our average sales price, the Medicare statute provides for significant civil monetary penalties for each misrepresentation for each day in which the misrepresentation was applied. If we are found to have charged 340B covered entities more than the statutorily mandated ceiling price, we could be subject to significant civil monetary penalties. Our failure to submit the required price data on a timely basis could result in a significant civil monetary penalty 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.

In order to be eligible to have its products paid for with federal funds under the Medicaid and Medicare Part B programs and purchased by the Department of Veterans Affairs ("VA"), Department of Defense ("DoD"), Public Health Service, and Coast Guard (the "Big Four agencies") and certain federal grantees, a manufacturer is required to participate in the VA Federal Supply Schedule ("FSS") pricing program, established under Section 603 of the Veterans Health Care Act of 1992. Under this program, the manufacturer is obligated to make its covered drugs available for procurement on an FSS contract and charge a price to the Big Four agencies that is no higher than the Federal Ceiling Price ("FCP"), which is a price calculated pursuant to a statutory formula. The FCP is derived from a calculated price point called the "non-federal average manufacturer price" ("Non-FAMP"), which the manufacturer calculates and reports to the VA on a quarterly and annual basis. Pursuant to applicable law, knowing provision of false information in connection with a Non-FAMP filing can subject a manufacturer to significant penalties for each item of false information. The FSS contract also contains extensive disclosure and certification requirements.

Under Section 703 of the National Defense Authorization Act for FY 2008, the manufacturer is required to pay quarterly rebates to DoD on utilization of its innovator products that are dispensed through DoD's Tricare network pharmacies to Tricare beneficiaries. The rebates are calculated as the difference between the annual Non-FAMP and FCP for the calendar year that the product was dispensed. A manufacturer that overcharges the government in connection with the FSS contract or Tricare Retail Pharmacy Rebate Program, whether due to a misstated FCP or otherwise, is 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.

***Our relationships with customers and third-party payors are 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, physicians, distributors 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 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 any products for which we have obtained or may obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

- The US 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 available statutory 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 or product assistance programs. In October 2019, the federal government published a proposed regulation that would create new safe harbors for (among other things) certain value-based arrangements and patient engagement tools, and modify and clarify the scope of existing safe harbors for warranties and personal service agreements; even if it is finalized, the impact of the proposed regulation on our operations is not yet clear.
- The federal civil False Claims Act prohibits, among other things, knowingly presenting, or causing to be presented, claims for payment of government funds that are false or fraudulent, or knowingly making, or 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. Private individuals, commonly known as “whistleblowers,” can bring civil False Claims Act *qui tam* actions, on behalf of the government and such individuals and may share in amounts paid by the entity to the government in recovery or settlement. 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. 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. 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. 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

significant mandatory penalties per false claim or statement for violations. 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 be 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 penalties, including imprisonment and criminal fines, are also possible for making or presenting a false, fictitious or fraudulent claim to the federal government.

- HIPAA, among other things, imposes criminal and civil liability for knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payors, 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. Similar to the federal healthcare Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation.
- The federal Physician Payment Sunshine Act, being implemented as the Open Payments Program, requires certain manufacturers of drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program (with certain exceptions) to report annually to the US Department of Health and Human Services, Centers for Medicare and Medicaid Services, information related to payments and other transfers of value, directly or indirectly, to physicians (defined to include doctors, dentists, optometrists, podiatrists, and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report information regarding payments and transfers of value provided to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, and certified nurse-midwives. 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 any third-party payors, including private insurers or patients. 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, and restrict the ability of manufacturers to offer co-pay support to patients for certain prescription drugs. Some states require the posting of information relating to clinical studies and their outcomes. Some states and cities require identification or licensing of sales representatives. In addition, several states require pharmaceutical companies to implement compliance programs or marketing codes.
- Similar restrictions are imposed on the promotion and marketing of medicinal products in the EU Member States and other countries, including restrictions prohibiting the promotion of a compound prior to its approval. Laws (including those governing promotion, 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 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 we or our partners 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, disgorgement, exclusion from government funded healthcare programs, such as Medicare and Medicaid in the US and similar programs outside the US, contractual damages, diminished profits and future earnings, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our financial results. If any of the physicians or other providers or entities with whom we do or expect to do business are found to not 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 negative publicity, which could harm our financial condition and divert resources and the attention of our management from operating our business.

***Our business and operations, including the use of hazardous and biological materials may result in liabilities with respect to environmental, health and safety matters.***

Our research and development activities involve the controlled use of potentially hazardous substances, including chemical, biological and radioactive materials. In addition, our operations produce hazardous waste products, including hazardous waste. Federal, state and local laws and regulations govern the use, manufacture, management, storage, handling and disposal of hazardous materials and wastes. We may incur significant additional costs or liabilities to comply with, or for violations of, these and other applicable laws in the future. Also, even if we are in compliance with applicable laws, we cannot completely eliminate the risk of contamination or injury resulting from hazardous materials and we may incur liability as a result of any such contamination or injury. Further, in the event of a release of or exposure to hazardous materials, including at the sites we currently or formerly operate or at sites such as landfills where we send wastes for disposal, we could be held liable for cleanup costs or damages or subject to other costs or penalties and such liability could exceed our resources. We do not have any insurance for liabilities arising from hazardous materials or under environmental laws. Compliance with or liability under applicable environmental laws and regulations or with respect to hazardous materials may be expensive, and current or future environmental regulations may impair our research, development and production efforts, which could harm our business, which could cause the price of our securities to fall.

**RISKS RELATING TO OUR ORDINARY SHARES**

***The market price for our shares has and may continue to fluctuate widely, and may result in substantial losses for purchasers of our ordinary shares.***

The market price for our shares has and may continue to fluctuate widely, and may result in substantial losses for purchasers of our ordinary shares. To the extent that low trading volumes for our ordinary shares continues, our stock price may fluctuate significantly more than the stock market as a whole or the stock prices of similar companies. Without a larger public float of actively traded shares, our ordinary shares are likely to be more sensitive to changes in sales volumes, market fluctuations and events or perceived events with respect to our business, than the shares of common stock of companies with broader public ownership, and as a result, the trading prices for our ordinary shares may be more volatile. Among other things, trading of a relatively small volume of ordinary shares may have a greater effect on the trading price than would be the case if our public float of actively traded shares were larger. In addition, as further described below under the risk factor entitled “—*Concentration of ownership will limit your ability to influence corporate matters,*” a number of shareholders hold large concentrations of our shares which, if sold within a relatively short timeframe, could cause the price of our shares to drop significantly.

Market prices for securities of biotechnology and biopharmaceutical companies have been highly volatile, and we expect such volatility to continue for the foreseeable future, so that investment in our ordinary shares involves substantial risk. Additionally, the stock market from time to time has experienced significant price and volume fluctuations unrelated to the operating performance of particular companies.



The following are some of the factors that may have a significant effect on the market price of our ordinary shares:

- lower than expected sales of YUPELRI;
- any adverse developments or results or perceived adverse developments or results with respect to the GSK Partnered Respiratory Programs including, without limitation, lower than expected sales of TRELEGY ELLIPTA, difficulties or delays encountered with regard to the FDA or other regulatory authorities in these programs or any indication from clinical or non-clinical studies that the compounds in such programs are not safe or efficacious;
- any adverse developments or results or perceived adverse developments or results with respect to our key clinical development programs, for example our JAK inhibitor program or ampreloxetine, including, without limitation, any delays in development in these programs, any halting of development in these programs, any difficulties or delays encountered with regard to the FDA or other regulatory authorities in these programs (including any class-based risks that emerge as a FDA or other regulatory agency focus), or any indication from clinical or non-clinical studies that the compounds in such programs are not safe or efficacious;
- any announcements of developments with, or comments by, the FDA or other regulatory authorities with respect to products we or our partners have under development, are manufacturing or have commercialized;
- any adverse developments or disagreements or perceived adverse developments or disagreements with respect to our relationship with Innoviva, such as our recently completed arbitration proceeding, or the relationship of Innoviva or TRC on the one hand and GSK on the other hand, including any such developments or disagreements resulting from or relating to the TRC LLC Agreement or to the Spin-Off;
- any adverse developments or perceived adverse developments with respect to our relationship with any of our research, development or commercialization partners, including, without limitation, disagreements that may arise between us and any of those partners;
- any adverse developments or perceived adverse developments in our programs with respect to partnering efforts or otherwise;
- announcements of patent issuances or denials, technological innovations or new commercial products by us or our competitors;
- publicity regarding actual or potential study results or the outcome of regulatory review relating to products under development by us, our partners or our competitors;
- regulatory developments in the US and foreign countries;
- announcements with respect to governmental or private insurer reimbursement policies;
- announcements of equity or debt financings;
- possible impairment charges on non-marketable equity securities;
- economic and other external factors beyond our control, such as fluctuations in interest rates;
- loss of key personnel;
- likelihood of our ordinary shares to be more sensitive to changes in sales volume, market fluctuations and events or perceived events with respect to our business due to our small public float;

- low public market trading volumes for our ordinary shares related in part to the concentration of ownership of our shares;
- the sale of large concentrations of our shares, which may be more likely to occur due to the concentration of ownership of our shares, such as what we experienced when our largest shareholder, Woodford Investment Management Limited, divested its holdings;
- developments or disputes as to patent or other proprietary rights;
- approval or introduction of competing products and technologies;
- results of clinical trials;
- failures or unexpected delays in timelines for our potential products in development, including the obtaining of regulatory approvals;
- delays in manufacturing adversely affecting clinical or commercial operations;
- fluctuations in our operating results;
- market reaction to announcements by other biotechnology or pharmaceutical companies;
- initiation, termination or modification of agreements with our collaborators or disputes or disagreements with collaborators;
- litigation or the threat of litigation;
- public concern as to the safety of product candidates or medicines developed by us; and
- comments and expectations of results made by securities analysts or investors.

If any of these factors causes us to fail to meet the expectations of securities analysts or investors, or if adverse conditions prevail or are perceived to prevail with respect to our business, the price of the ordinary shares would likely drop significantly. A significant drop in the price of a company's securities often leads to the filing of securities class action litigation against the company. This type of litigation against us could result in substantial costs and a diversion of management's attention and resources.

***Concentration of ownership will limit your ability to influence corporate matters.***

Based on our review of publicly available filings, as of December 31, 2019, our three largest shareholders collectively owned 48.2% of our outstanding ordinary shares. These shareholders could control the outcome of actions taken by us that require shareholder approval, including a transaction in which shareholders might receive a premium over the prevailing market price for their shares.

***Certain provisions in our constitutional and other documents may discourage our acquisition by a third-party, which could limit your opportunity to sell shares at a premium.***

Our constitutional documents include provisions that could limit the ability of others to acquire control of us, modify our structure or cause us to engage in change-of-control transactions, including, among other things, provisions that:

- require supermajority shareholder voting to effect certain amendments to our amended and restated memorandum and articles of association;

- establish a classified board of directors;
- restrict our shareholders from calling meetings or acting by written consent in lieu of a meeting;
- limit the ability of our shareholders to propose actions at duly convened meetings; and
- authorize our board of directors, without action by our shareholders, to issue preferred shares and additional ordinary shares.

In addition, in May 2018, our shareholders approved a resolution authorizing our board of directors to adopt a shareholder rights plan in the future intended to deter any person from acquiring more than 19.9% of our outstanding ordinary shares without the approval of our board of directors.

These provisions could have the effect of depriving you of an opportunity to sell your ordinary shares at a premium over prevailing market prices by discouraging third parties from seeking to acquire control of us in a tender offer or similar transaction.

***Our shareholders may face difficulties in protecting their interests because we are incorporated under Cayman Islands law.***

Our corporate affairs are governed by our amended and restated memorandum and articles of association, by the Companies Law (2020 Revision) of the Cayman Islands and by the common law of the Cayman Islands. The rights of our shareholders and the fiduciary responsibilities of our directors under the laws of the Cayman Islands are different from those under statutes or judicial precedent in existence in jurisdictions in the US. Therefore, you may have more difficulty in protecting your interests than would shareholders of a corporation incorporated in a jurisdiction in the US, due to the different nature of Cayman Islands law in this area.

Shareholders of Cayman Islands exempted companies such as our company have no general rights under Cayman Islands law to inspect corporate records and accounts or to obtain copies of lists of shareholders. Our directors have discretion under our amended and restated memorandum and articles of association to determine whether or not, and under what conditions, our corporate records may be inspected by our shareholders, but are not obliged to make them available to our shareholders. This may make it more difficult for you to obtain the information needed to establish any facts necessary for a shareholder motion or to solicit proxies from other shareholders in connection with a proxy contest.

Our Cayman Islands counsel, Maples and Calder, is not aware of any reported class action having been brought in a Cayman Islands court. Derivative actions have been brought in the Cayman Islands courts, and the Cayman Islands courts have confirmed the availability for such actions. In most cases, the company will be the proper plaintiff in any claim based on a breach of duty owed to it, and a claim against (for example) our officers or directors usually may not be brought by a shareholder. However, based on English authorities, which would in all likelihood be of persuasive authority and be applied by a court in the Cayman Islands, exceptions to the foregoing principle apply in circumstances in which:

- a company is acting, or proposing to act, illegally or beyond the scope of its authority;
- the act complained of, although not beyond the scope of the authority, could be effected if duly authorized by more than the number of votes which have actually been obtained; or
- those who control the company are perpetrating a “fraud on the minority.”

A shareholder may have a direct right of action against the company where the individual rights of that shareholder have been infringed or are about to be infringed.

***There is uncertainty as to shareholders' ability to enforce certain foreign civil liabilities in the Cayman Islands.***

We are incorporated as an exempted company limited by shares with limited liability under the laws of the Cayman Islands. A material portion of our assets are located outside of the US. As a result, it may be difficult for our shareholders to enforce judgments against us or judgments obtained in US courts predicated upon the civil liability provisions of the federal securities laws of the US or any state of the US.

We have been advised by our Cayman Islands legal counsel, Maples and Calder, that the courts of the Cayman Islands are unlikely (i) to recognize or enforce against Theravance Biopharma judgments of courts of the US predicated upon the civil liability provisions of the securities laws of the US or any State; and (ii) in original actions brought in the Cayman Islands, to impose liabilities against Theravance Biopharma predicated upon the civil liability provisions of the securities laws of the US or any State, on the grounds that such provisions are penal in nature. However, in the case of laws that are not penal in nature, although there is no statutory enforcement in the Cayman Islands of judgments obtained in the US, the courts of the Cayman Islands will recognize and enforce a foreign money judgment of a foreign court of competent jurisdiction without retrial on the merits based on the principle that a judgment of a competent foreign court imposes upon the judgment debtor an obligation to pay the sum for which judgment has been given provided certain conditions are met. For a foreign judgment to be enforced in the Cayman Islands, such judgment must be final and conclusive and for a liquidated sum, and must not be in respect of taxes or a fine or penalty, inconsistent with a Cayman Islands' judgment in respect of the same matter, impeachable on the grounds of fraud or obtained in a manner, and or be of a kind the enforcement of which is, contrary to natural justice or the public policy of the Cayman Islands (awards of punitive or multiple damages may well be held to be contrary to public policy). A Cayman Islands court, including the Grand Court of the Cayman Islands, may stay proceedings if concurrent proceedings are being brought elsewhere, which would delay proceedings and make it more difficult for our shareholders to bring action against us.

***If securities or industry analysts cease coverage of us or do not publish research, or publish inaccurate or unfavorable research, about our business, the price of our ordinary shares and trading volume could decline.***

The trading market for our ordinary shares depends in part on the research and reports that securities or industry analysts publish about us or our business. If few securities analysts commence coverage of us, or if industry analysts cease coverage of us, the trading price for our ordinary shares could be negatively affected. If one or more of the analysts who cover us downgrade our ordinary shares or publish inaccurate or unfavorable research about our business or if our results fail to meet the expectations of these analysts, the price of our ordinary shares would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our ordinary shares could decrease, which might cause our share price and trading volume to decline.

***We do not anticipate paying any cash dividends on our capital shares in the foreseeable future; as a result, capital appreciation, if any, of our ordinary shares will be your sole source of gain for the foreseeable future.***

We have never declared or paid cash dividends on our capital shares. We do not anticipate paying any cash dividends on our capital shares in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. In addition, the terms of any future debt financing arrangement may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our ordinary shares. As a result, capital appreciation, if any, of our ordinary shares will be your sole source of gain for the foreseeable future.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

Not applicable.

**ITEM 2. PROPERTIES**

Our principal physical properties in the US consist of approximately 170,000 square feet of office and laboratory space leased in two buildings in South San Francisco, California. The South San Francisco lease expires in

May 2030. Our Irish subsidiary operates from approximately 6,100 square feet of leased office space in Dublin, Ireland, and the lease expires in April 2027. We believe our current space is sufficient for our needs.

**ITEM 3. LEGAL PROCEEDINGS**

We are not currently a party to any material litigation or other material legal proceedings.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**PART II****ITEM 5. MARKET FOR THE REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our ordinary shares have traded on The NASDAQ Global Market under the symbol “TBPH” since June 3, 2014. As of February 19, 2020, there were 67 shareholders of record of our ordinary shares. As many of our ordinary shares are held by brokers and other institutions on behalf of shareholders, we are unable to estimate the total number of shareholders represented by these record holders.

*Dividend Policy*

We currently intend to retain any future earnings to finance our research and development efforts. We have never declared or paid cash dividends on our ordinary shares and do not intend to declare or pay cash dividends on our ordinary shares in the foreseeable future.

*Equity Compensation Plans*

The following table provides certain information with respect to all of our equity compensation plans in effect as of December 31, 2019:

<b>Plan Category</b>	<b>Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)</b>	<b>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights</b>	<b>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a))</b>
Options	2,677,535	\$ 25.48	3,469,185
Restricted shares	4,939,774	n/a	n/a
Employee share purchase plan	n/a	n/a	2,036,122
Equity compensation plans approved by security holders			
Options	7,617,309	\$ 25.48	5,505,307
Equity compensation plans not approved by security holders			
Options	272,937	\$ 17.58	200,261
Equity compensation plans not approved by security holders			
Options	272,937	\$ 17.58	200,261
<b>Total</b>	<b>7,890,246</b>	<b>\$ 24.74</b>	<b>5,705,568</b>

We have three equity compensation plans — our 2013 Equity Incentive Plan (the “2013 EIP”), our 2013 Employee Share Purchase Plan (the “2013 ESPP”), and our 2014 New Employee Equity Incentive Plan (the “2014 NEEIP”). At inception of the plans, we were authorized to issue 5,428,571 ordinary shares under the 2013 EIP and 857,142 ordinary shares under the 2013 ESPP, and 750,000 ordinary shares under the 2014 NEEIP.

The 2013 EIP provides for the issuance of share-based awards, including restricted shares, restricted share units, options, share appreciation rights (“SARs”) and other equity-based awards, to our employees, officers, directors and consultants. As of January 1 of each year, commencing on January 1, 2015 and ending on (and including) January 1, 2023, the aggregate number of ordinary shares that may be issued under the 2013 EIP shall automatically increase by a number equal to the least of 5% of the total number of ordinary shares outstanding on December 31 of the prior year, 3,428,571 ordinary shares, or a number of ordinary shares determined by our board of directors. Options may be granted with an exercise price not less than the fair market value of the ordinary shares on the grant date. Under the terms of our 2013 EIP, options granted to employees generally have a maximum term of 10 years and vest over a four-year period from the date of grant; 25% vest at the end of one year, and 75% vest monthly over the remaining three years. We may grant options with different vesting terms from time to time. Unless an employee’s termination of service is due to disability or death, upon termination of service, any unexercised vested options will generally be forfeited at the end of three months or the expiration of the option, whichever is earlier.

Under the 2013 ESPP, our officers and employees may purchase ordinary shares through payroll deductions at a price equal to 85% of the lower of the fair market value of the ordinary share at the beginning of the offering period or at the end of each applicable purchase period. As of January 1 of each year, commencing on January 1, 2015 and ending on (and including) January 1, 2033, the aggregate number of ordinary shares that may be issued under the 2013 ESPP shall automatically increase by a number equal to the least of 1% of the total number of ordinary shares outstanding on December 31 of the prior year, 857,142 ordinary shares, or a number of ordinary shares determined by our board of directors. The ESPP generally provides for consecutive and overlapping offering periods of 24 months in duration, with each offering period generally composed of four consecutive six-month purchase periods. The purchase periods end on either May 15 or November 15. ESPP contributions are limited to a maximum of 15% of an employee's eligible compensation.

Our 2013 ESPP also includes a feature that provides for the existing offering period to terminate and for participants in that offering period to automatically be enrolled in a new offering period when the fair market value of an ordinary share at the beginning of a subsequent offering period falls below the fair market value of an ordinary share on the first day of such offering period.

The 2014 NEEIP provides for the issuance of share-based awards, including restricted shares, restricted share units, non-qualified options and SARs, to our employees. Options may be granted with an exercise price not less than the fair market value of the ordinary shares on the grant date. Under the terms of our 2014 NEEIP, options granted to employees generally have a maximum term of 10 years and vest over a four-year period from the date of grant; 25% vest at the end of one year, and 75% vest monthly over the remaining three years. We may grant options with different vesting terms from time to time. Unless an employee's termination of service is due to disability or death, upon termination of service, any unexercised vested options will generally be forfeited at the end of three months or the expiration of the option, whichever is earlier.

Additional information regarding share-based compensation is included in "*Item 8, Note 1. Organization and Summary of Significant Accounting Policies,*" and "*Item 8, Note 11. Share-Based Compensation,*" to the consolidated financial statements appearing in this Annual Report on Form 10-K.

#### *Share Performance Graph*

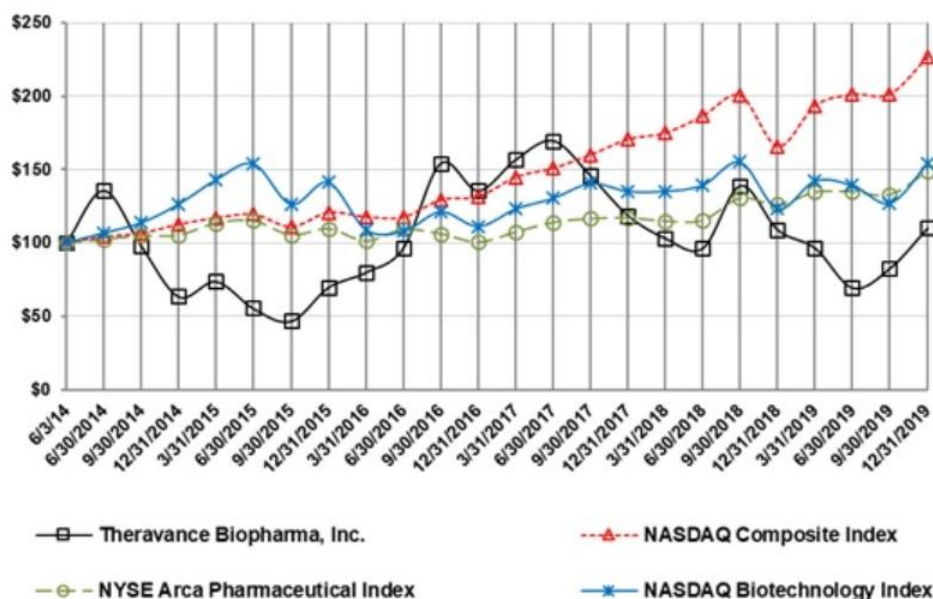
The graph set forth below compares the cumulative total shareholder return on our ordinary shares for the period commencing on June 3, 2014, the date on which our ordinary shares began trading on The NASDAQ Global Market, through December 31, 2019, with the cumulative total return of (i) the NASDAQ Composite Index, (ii) the NYSE Arca Pharmaceutical Index (previously labeled as the NASDAQ Pharmaceutical Index) and (iii) the NASDAQ Biotechnology Index over the same period. This graph assumes the investment of \$100 on June 3, 2014 in each of (1) our ordinary shares, (2) the NASDAQ Composite Index, (3) the NYSE Arca Pharmaceutical Index and (4) the NASDAQ Biotechnology Index, and assumes the reinvestment of dividends, if any, although dividends have never been declared on our ordinary shares.

The comparisons shown in the graph below are based upon historical data. We caution that the price performance shown in the graph below is not necessarily indicative of, nor is it intended to forecast, the potential future performance of our ordinary shares.

Notwithstanding anything to the contrary set forth in any of our previous or future filings under the Securities Act or the Exchange Act that might incorporate this Annual Report on Form 10-K or future filings made by us under those statutes, this Performance Graph section shall not be deemed filed with the SEC and shall not be deemed incorporated by reference into any of those prior filings or into any future filings made by us under those statutes.

**COMPARISON OF CUMULATIVE TOTAL RETURN \***

Among Theravance Biopharma, Inc., the NASDAQ Composite Index,  
the NYSE Arca Pharmaceutical Index and the NASDAQ Biotechnology Index



\* Shows the cumulative return on investment assuming an investment of \$100 in our ordinary shares or the indices on June 3, 2014, including the reinvestment of dividends.

<u>\$100 Investment in TBPB Shares or Index</u>	<u>TBPB</u>	<u>NASDAQ Composite Index</u>	<u>NYSE Arca Pharmaceutical Index</u>	<u>NASDAQ Biotechnology Index</u>
June 3, 2014	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00
December 31, 2014	63.46	112.66	105.29	126.47
December 31, 2015	69.72	120.66	109.68	141.35
December 31, 2016	135.60	131.49	100.53	111.17
December 31, 2017	118.63	170.57	117.20	135.22
December 31, 2018	108.85	165.78	125.98	123.24
December 31, 2019	110.12	226.68	149.14	154.18

**ITEM 6. SELECTED FINANCIAL DATA**

The selected consolidated summary financial data below should be read in conjunction with Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Part II, Item 8, “Financial Statements and Supplementary Data”, in this Annual Report on Form 10-K.

The following table sets forth certain summary historical financial information as of and for each of the years in the five-year period ended December 31, 2019, which have been derived from our (i) audited consolidated financial statements as of December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018, and 2017, which are included in this Annual Report, and (ii) audited consolidated financial statements as of December 31, 2017, 2016 and 2015 and for the years ended December 31, 2016, and 2015, which are not included in this Annual Report. The summary



historical financial information may not be indicative of our financial position or results of operations in any future period.

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(In thousands, except per share data)				
<b>CONSOLIDATED STATEMENTS OF OPERATIONS DATA</b>					
Product sales <sup>(1)</sup>	\$ —	\$ 15,304	\$ 14,788	\$ 17,603	\$ 9,408
Collaboration revenue	31,250	41,791	598	31,045	32,718
Licensing revenue	28,500	—	—	—	—
Mylan collaboration agreement	13,664	3,275	—	—	—
Total revenue	73,414	60,370	15,386	48,648	42,126
Costs and expenses:					
Cost of goods sold <sup>(2)</sup>	—	715	6,030	2,894	4,657
Research and development	219,248	201,348	173,887	141,712	129,165
Selling, general and administrative	106,081	97,058	95,592	84,509	90,203
Total costs and expenses <sup>(3)</sup>	325,329	299,121	275,509	229,115	224,025
Loss from operations	(251,915)	(238,751)	(260,123)	(180,467)	(181,899)
Income from investment in TRC, LLC <sup>(4)</sup>	33,705	11,182	170	—	—
Interest expense	(31,862)	(10,482)	(8,547)	(1,404)	—
Other-than-temporary impairment loss	—	—	(8,000)	—	—
Interest and other income, net	8,395	11,966	4,789	1,312	631
Loss before income taxes	(241,677)	(226,085)	(271,711)	(180,559)	(181,268)
Provision for income tax benefit (expense)	5,222	10,561	(13,694)	(10,110)	(951)
Net loss	\$ (236,455)	\$ (215,524)	\$ (285,405)	\$ (190,669)	\$ (182,219)
Basic and diluted net loss per share	\$ (4.25)	\$ (3.99)	\$ (5.45)	\$ (4.26)	\$ (5.34)
Shares used to compute basic and diluted net loss per share	55,610	53,969	52,352	44,711	34,150

	As of December 31,				
	2019	2018	2017	2016	2015
	(In thousands)				
<b>CONSOLIDATED BALANCE SHEETS DATA</b>					
Cash, cash equivalents and marketable securities	\$ 285,816	\$ 517,145	\$ 390,153	\$ 592,661	\$ 215,294
Working capital	226,785	434,269	316,197	479,235	188,002
Total assets	408,826	560,235	441,400	639,254	300,116
Convertible senior notes due 2023, net	225,890	224,818	223,746	222,676	—
Non-recourse notes due 2033, net	229,151	229,535	—	—	—
Accumulated deficit	(1,248,600)	(1,012,145)	(797,740)	(512,225)	(321,556)
Total shareholders' (deficit) equity	(223,840)	(51,589)	115,178	350,231	243,065

(1) In November 2018, we completed the sale of our assets related to the manufacture, marketing and sale of the VIBATIV product to Cumberland Pharmaceuticals Inc. pursuant to an Asset Purchase Agreement.

(2) For the year ended December 31, 2018, cost of goods sold included a reversal of a \$2.25 million charge related to excess inventory purchase commitments originally recognized in 2017. For the years ended December 31, 2017, 2016, and 2015 cost of goods sold included charges of \$3.0 million, \$0.3 million, and \$1.9 million, respectively, arising from excess inventory.

(3) The following table discloses the allocation of share-based compensation expense included in total operating expenses:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
			(In thousands)		
Research and development	\$ 28,953	\$ 25,563	\$ 22,691	\$ 20,202	\$ 25,770
Selling, general and administrative	31,497	25,750	26,454	20,967	28,280
Total share-based compensation	\$ 60,450	\$ 51,313	\$ 49,145	\$ 41,169	\$ 54,050

(4) 75% of the income from our investment in TRC is available only for payment of the Non-Recourse 2033 Notes and is not available to pay our other obligations or any claims of our other creditors.

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Management's Discussion and Analysis ("MD&A") is intended to facilitate an understanding of our business and results of operations. This discussion and analysis should be read in conjunction with our consolidated financial statements and notes included in this Annual Report on Form 10-K. The information contained in this discussion and analysis or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business, our operating expenses, and future payments under our collaboration agreements, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934 (the "Exchange Act"). Such statements are based upon current expectations that involve risks and uncertainties. You should review the section entitled "*Risk Factors*" in Item 1A of Part I above for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. See the section entitled "*Special Note regarding Forward-Looking Statements*" above for more information.

### Management Overview

Theravance Biopharma, Inc. ("we," "our" or "Theravance Biopharma") is a diversified biopharmaceutical company primarily focused on the discovery, development and commercialization of organ-selective medicines. Our purpose is to create transformational medicines to improve the lives of patients suffering from serious illnesses. Our research is focused in the areas of inflammation and immunology.

In pursuit of our purpose, we apply insights and innovation at each stage of our business and utilize our internal capabilities and those of partners around the world. We apply organ-selective expertise to biologically compelling targets to discover and develop medicines designed to treat underserved localized diseases and to limit systemic exposure, in order to maximize patient benefit and minimize risk. These efforts leverage years of experience in developing lung-selective medicines to treat respiratory disease, including the United States ("US") Food and Drug Administration (the "FDA") approved YUPELRI<sup>®</sup> (revefenacin) inhalation solution indicated for the maintenance treatment of patients with chronic obstructive pulmonary disease ("COPD"). Our pipeline of internally discovered programs is targeted to address significant patient needs.

We have an economic interest in potential future payments from Glaxo Group or one of its affiliates ("GSK") pursuant to its agreements with Innoviva, Inc. ("Innoviva") relating to certain programs, including TRELEGY ELLIPTA.

### Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with US Generally Accepted Accounting Principles ("GAAP"). The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the

circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

### **Revenue Recognition**

Effective January 1, 2018, we adopted Accounting Standards Codification, Topic 606, *Revenue from Contracts with Customers* ("ASC 606") using the modified retrospective method. Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, an entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation.

At contract inception, once the contract is determined to be within the scope of ASC 606, we identify the performance obligations in the contract by assessing whether the goods or services promised within each contract are distinct. We then recognize revenue for the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

### **Product Sales**

In our accompanying consolidated statements of operations, the comparative prior period product sales revenue recognized in 2017 remains reported under Accounting Standards Codification, Topic 605, *Revenue Recognition* ("ASC 605"), and our product sales revenue recognized in 2018 would not have been materially different under ASC 605 as compared to ASC 606.

On November 12, 2018, we completed the sale of our assets related to the manufacture, marketing and sale of the VIBATIV product to Cumberland Pharmaceuticals Inc. ("Cumberland") pursuant to the Asset Purchase Agreement dated November 1, 2018. Up until that date, we sold VIBATIV in the US market by making the drug product available through a limited number of distributors, who sold VIBATIV to healthcare providers. Title and risk of loss transferred upon receipt by these distributors. We recognized VIBATIV product sales and related cost of product sales when the distributors obtained control of the drug product, which was at the time title transferred to the distributors.

We recorded sales on a net sales basis which included estimates of variable consideration. The variable consideration resulted from sales discounts, government-mandated rebates and chargebacks, distribution fees, estimated product returns and other deductions for sales made by us prior to the November 12, 2018 sale to Cumberland. We reflected such reductions in revenue as either an allowance to the related account receivable from the distributor, or as an accrued liability, depending on the nature of the sales deduction. Sales deductions were based on management's estimates that considered payor mix in target markets, industry benchmarks and historical experience. In general, these estimates took into consideration a range of possible outcomes which were probability-weighted in accordance with the expected value method in ASC 606. We monitored inventory levels in the distribution channel, as well as sales by distributors to healthcare providers, using product-specific data provided by the distributors. Product return allowances were based on amounts owed or to be claimed on related sales. These estimates took into consideration the terms of our agreements with customers, historical product returns, rebates or discounts taken, estimated levels of inventory in the distribution channel, the shelf life of the product and specific known market events, such as competitive pricing and new product introductions. We updated our estimates and assumptions each quarter and if actual future results varied from our estimates, we adjusted these estimates, which could have had an effect on product sales and earnings in the period of adjustment.

The following table summarizes activity in each of the product revenue allowance and reserve categories:

(In thousands)	Chargebacks, Discounts and Fees	Government and Other Rebates	Returns	Total
Balance at December 31, 2017	\$ 992	\$ 352	\$ 946	\$ 2,290
Provision related to current period sales	6,402	704	521	7,627
Adjustment related to prior period sales	(81)	168	(449)	(362)
Credit or payments made during the period	(6,938)	(932)	(157)	(8,027)
Balance at December 31, 2018	\$ 375	\$ 292	\$ 861	\$ 1,528
Provision related to current period sales	—	—	—	—
Adjustment related to prior period sales	116	121	(38)	199
Credit or payments made during the period	(264)	(202)	—	(466)
Balance at December 31, 2019	\$ 227	\$ 211	\$ 823	\$ 1,261

*Collaborative Arrangements under ASC 606*

We enter into collaborative arrangements with partners that fall under the scope of Accounting Standards Codification, Topic 808, *Collaborative Arrangements* (“ASC 808”). While these arrangements are in the scope of ASC 808, we may analogize to ASC 606 for some aspects of the arrangements. We analogize to ASC 606 for certain activities within the collaborative arrangement for the delivery of a good or service (i.e., a unit of account) that is part of our ongoing major or central operations. Revenue recognized by analogizing to ASC 606 is recorded as “collaboration revenue” or “licensing revenue” whereas, revenue recognized in accordance with ASC 808, is recorded on a separate collaboration revenue line on the consolidated statements of operations.

The terms of our collaborative arrangements typically include one or more of the following: (i) up-front fees; (ii) milestone payments related to the achievement of development, regulatory, or commercial goals; (iii) royalties on net sales of licensed products; (iv) reimbursements or cost-sharing of research and development expenses; and (v) profit/loss sharing arising from co-promotion arrangements. Each of these payments results in collaboration revenues or an offset against research and development expense. Where a portion of non-refundable up-front fees or other payments received is allocated to continuing performance obligations under the terms of a collaborative arrangement, they are recorded as deferred revenue and recognized as collaboration revenue when (or as) the underlying performance obligation is satisfied.

As part of the accounting for these arrangements, we must develop estimates and assumptions that require judgment to determine the underlying stand-alone selling price for each performance obligation which determines how the transaction price is allocated among the performance obligations. The estimation of the stand-alone selling price may include such estimates as, forecasted revenues or costs, development timelines, discount rates and probabilities of technical and regulatory success. We evaluate each performance obligation to determine if they can be satisfied at a point in time or over time, and we measure the services delivered to our collaborative partner which are periodically reviewed based on the progress of the related program. The effect of any change made to an estimated input component and, therefore revenue or expense recognized, would be recorded as a change in estimate. In addition, variable consideration (e.g., milestone payments) must be evaluated to determine if it is constrained and, therefore, excluded from the transaction price.

*Up-front Fees:* If a license to our intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, we recognize collaboration revenues from the transaction price allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, we utilize judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing collaboration revenue from the allocated transaction price. For example, when we receive up-front fees for the performance of research and development services, or when research and development services are not considered to be distinct from a license, we recognize collaboration revenue for those units of account over time using a measure of progress. We evaluate the

measure of progress each reporting period and, if necessary, adjust the measure of performance and related revenue or expense recognition as a change in estimate.

*Milestone Payments:* At the inception of each arrangement that includes milestone payments (variable consideration), we evaluate whether the milestones are considered probable of being reached and estimate the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within our or the collaborative partner's control, such as non-operational developmental and regulatory approvals, are generally not considered probable of being achieved until those approvals are received. At the end of each reporting period, we re-evaluate the probability of achievement of milestones that are within our or the collaborative partner's control, such as operational developmental milestones and any related constraint, and if necessary, adjust our estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect collaboration revenues and earnings in the period of adjustment. Revisions to our estimate of the transaction price may also result in negative collaboration revenues and earnings in the period of adjustment.

*Royalties:* For arrangements that include sales-based royalties, including commercial milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, we recognize revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied).

Following the sale of VIBATIV to Cumberland in November 2018, VIBATIV royalties earned from Cumberland are included within "interest and other income, net" on the consolidated statements of operations. In addition, our income earned related to TRELEGY ELLIPTA sales is included within "income from our investment in TRC, LLC" on the consolidated statements of operations.

*Reimbursement, cost-sharing and profit-sharing payments:* Under certain collaborative arrangements, we have been reimbursed for a portion of our research and development expenses or participate in the cost-sharing of such research and development expenses. Such reimbursements and cost-sharing arrangements have been reflected as a reduction of research and development expense in our consolidated statements of operations, as we do not consider performing research and development services for reimbursement to be a part of our ongoing major or central operations.

#### **Research and Development Expenses**

Research and development ("R&D") expenses are recorded in the period that services are rendered or goods are received. R&D expenses consist of salaries and benefits, laboratory supplies and facility costs, as well as fees paid to third parties that conduct certain R&D activities on behalf of us, net of certain external R&D expenses reimbursed under our collaborative arrangements.

As part of the process of preparing financial statements, we are required to estimate and accrue certain R&D expenses. This process involves the following:

- identifying services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual cost;
- estimating and accruing expenses in our financial statements as of each balance sheet date based on facts and circumstances known to us at the time; and
- periodically confirming the accuracy of our estimates with selected service providers and making adjustments, if necessary.

Examples of estimated research and development expenses that we accrue include:

- fees paid to clinical research organizations (“CROs”) in connection with preclinical and toxicology studies and clinical studies;
- fees paid to investigative sites in connection with clinical studies;
- fees paid to contract manufacturing organizations (“CMOs”) in connection with the production of product and clinical study materials; and
- professional service fees for consulting and related services.

We base our expense accruals related to clinical studies on our estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and CROs that conduct and manage clinical studies on our behalf. The financial terms of these agreements vary from contract to contract and may result in uneven payment flows. Payments under some of these contracts depend on factors, such as the successful enrollment of patients and the completion of clinical study milestones. Our service providers typically invoice us monthly in arrears for services performed. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If we do not identify costs that we have begun to incur or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates.

To date, we have not experienced significant changes in our estimates of accrued research and development expenses after a reporting period. Such changes in estimates recorded after a reporting period have been less than 1% of our annual R&D expenses and have not been material. However, due to the nature of estimates, there is no assurance that we will not make changes to our estimates in the future as we become aware of additional information about the status or conduct of our clinical studies and other research activities. Such changes in estimates will be recognized as research and development expenses in the period that the change in estimate occurs.

#### ***Theravance Respiratory Company, LLC (“TRC”)***

Through our equity ownership of TRC, we are entitled to receive an 85% economic interest in any future payments that may be made by GSK relating to the GSK-Partnered Respiratory Programs (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters). The GSK-Partnered Respiratory Programs consist primarily of the TRELEGY ELLIPTA program and the inhaled Bifunctional Muscarinic Antagonist-Beta2 Agonist (“MABA”) program.

We analyzed our ownership, contractual and other interests in TRC to determine if TRC is a variable-interest entity (“VIE”), whether we have a variable interest in TRC and the nature and extent of that interest. We determined that TRC is a VIE. The party with the controlling financial interest, the primary beneficiary, is required to consolidate the entity determined to be a VIE. Therefore, we also assessed whether we are the primary beneficiary of TRC based on the power to direct its activities that most significantly impact its economic performance and our obligation to absorb its losses or the right to receive benefits from it that could potentially be significant to TRC. Based on our assessment, we determined that we are not the primary beneficiary of TRC, and, as a result, we do not consolidate TRC in our consolidated financial statements. TRC is recognized in our consolidated financial statements under the equity method of accounting. Income related to our equity ownership of TRC is reflected in our consolidated statements of operations as non-operating income.

#### ***Income Taxes***

We utilize the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and tax basis of assets and liabilities and are measured using enacted tax rates and laws that are anticipated to be in effect when the differences are expected to reverse. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized.

Our total unrecognized tax benefits of \$58.8 million and \$52.4 million, as of December 31, 2019 and December 31, 2018, respectively, may reduce the effective tax rate in the period of recognition. We currently have a full valuation allowance against our deferred tax assets, which would impact the timing of the effective tax rate benefit should any of these uncertain positions be favorably settled in the future.

We assess all material positions, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position's sustainability and is measured at the largest amount of benefit that is greater than 50% likely to be realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and we will determine whether the factors underlying the sustainability assertion have changed and whether the amount of the recognized tax benefit is still appropriate.

The recognition and measurement of tax benefits requires significant judgment. We have taken certain positions where we believe that our position is greater than 50% likely to be realized upon ultimate settlement and for which no reserve for uncertain tax positions has been recorded. If we do not ultimately realize the expected benefit of these positions, we will record additional income tax expenses in future periods. Judgments concerning the recognition and measurement of a tax benefit might change as new information becomes available.

Any tax levied or credited by a governmental taxing authority that is not based on our income is outside the scope of accounting for income taxes. Therefore, we record such items as a component in our loss before income taxes.

## Results of Operations

The following tables set forth our results of operations for the periods presented. Management's commentary for the 2019 results compared to 2018 results are presented in the paragraphs below, and management's commentary for the 2018 results compared to the 2017 results are included in our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the Securities and Exchange Commission ("SEC") on February 28, 2019.

### Revenue

Revenue, as compared to the prior years, was as follows:

(In thousands)	Year Ended December 31,			Change				
	2019		2018	2019		2018		
	\$	%	\$	\$	%	\$	%	
Product sales	\$ —		\$ 15,304	\$ 14,788	\$ (15,304)	NM %	\$ 516	3 %
Collaboration revenue	31,250		41,791	598	(10,541)	(25)	41,193	NM
Licensing revenue	28,500		—	—	28,500	NM	—	NM
Mylan collaboration agreement	13,664		3,275	—	10,389	317	3,275	NM
Total revenue	\$ 73,414		\$ 60,370	\$ 15,386	\$ 13,044	22 %	\$ 44,984	292 %

NM: Not Meaningful

As a result of the sale of our VIBATIV business to Cumberland in November 2018, no product sales were recognized in 2019.

Collaboration revenue was \$31.3 million in 2019, which represented a \$10.5 million decrease from 2018. The \$10.5 million decrease was primarily due to Alfasigma's exercise of its option to develop and commercialize velusetrag in April 2018. In 2019, collaboration revenue from the Janssen collaboration agreement for TD-1473 and related back-up compounds, entered into in February 2018, was \$31.1 million and unchanged from 2018.

Licensing revenue was \$28.5 million in 2019 and was comprised of an \$18.5 million upfront payment (before a required tax withholding) from Mylan associated with the June 2019 amendment for the commercialization and development rights to nebulized revefenacin in China and adjacent territories and a \$10.0 million upfront payment from the Pfizer collaboration agreement for our preclinical skin-selective, locally-acting pan-JAK inhibitor program that was entered into in December 2019.

We are entitled to a share of US profits and losses (65% to Mylan; 35% to Theravance Biopharma) received in connection with commercialization of YUPELRI. Any reimbursement from Mylan attributed to the 65% cost-sharing of our R&D expenses is characterized as a reduction of R&D expense, as we do not consider performing research and development services for reimbursement to be a part of our ongoing major or central operations. In accordance with the applicable accounting guidance, amounts receivable from Mylan in connection with the commercialization of YUPELRI are recorded within the consolidated statements of operations as revenue from “Mylan collaboration agreement” irrespective of whether the overall collaboration is profitable. Amounts payable to Mylan in connection with the commercialization of YUPELRI are recorded within the consolidated statements of operations as a collaboration loss within selling, general and administrative expenses.

In 2019, we recognized \$13.7 million in revenue from the Mylan collaboration agreement which represented the receivables due from Mylan since YUPELRI’s formal product launch in early 2019. Revenue from the Mylan collaboration agreement was \$3.3 million in 2018 and represented the receivables due from Mylan during the initial channel buildout for YUPELRI in late 2018.

**Cost of Goods Sold**

Cost of goods sold, as compared to the prior years, was as follows:

(In thousands)	Year Ended December 31,			Change			
	2019	2018	2017	2019		2018	
	\$	\$	\$	\$	%	\$	%
Cost of goods sold	\$ —	\$ 715	\$ 6,030	\$ (715)	NM %	\$ (5,315)	(88)%

NM: Not Meaningful

As a result of the sale of our VIBATIV business to Cumberland in November 2018, no cost of goods sold was recognized in 2019.

**Reduction in Workforce**

In January 2019, we announced a reduction in workforce to align with our focus on continued execution of key strategic programs and advancement of selected late-stage research programs toward clinical development. We reduced our overall headcount by 51 individuals, with the affected employees primarily focused on early research or the infrastructure in support of VIBATIV which was sold by us to Cumberland in November 2018.

The workforce reduction was substantially completed in the first quarter of 2019. We recorded and paid severance related charges totaling \$3.5 million in 2019, including compensation expense made to affected employees through any minimum statutory notice periods. The severance related charges are presented on the consolidated statements of operations within research and development expenses and selling, general and administrative expenses.

**Research & Development**

Our R&D expenses consist primarily of employee-related costs, external costs, and various allocable expenses. We budget total R&D expenses on an internal department level basis, and we manage and report our R&D activities across the following four cost categories:

- 1) Employee-related costs, which include salaries, wages and benefits;
- 2) Share-based compensation, which includes expenses associated with our equity plans;
- 3) External-related costs, which include clinical trial related expenses, other contract research fees, consulting fees, and contract manufacturing fees; and
- 4) Facilities and other, which include laboratory and office supplies, depreciation and other allocated expenses, which include general and administrative support functions, insurance and general supplies.



The following table summarizes our R&D expenses incurred, net of any reimbursements from collaboration partners, as compared to the prior years:

(In thousands)	Year Ended December 31,			Change			
				2019		2018	
	2019	2018	2017	\$	%	\$	%
Employee-related	\$ 64,531	\$ 62,896	\$ 57,723	\$ 1,635	3 %	\$ 5,173	9 %
Share-based compensation	28,953	25,563	22,691	3,390	13	2,872	13
External-related	92,921	77,305	62,656	15,616	20	14,649	23
Facilities, depreciation and other allocated expenses	32,843	35,584	30,817	(2,741)	(8)	4,767	15
<b>Total research &amp; development</b>	<b>\$ 219,248</b>	<b>\$ 201,348</b>	<b>\$ 173,887</b>	<b>\$ 17,900</b>	<b>9 %</b>	<b>\$ 27,461</b>	<b>16 %</b>

R&D expenses increased by \$17.9 million in 2019 compared to 2018. The increase was primarily due to a \$15.6 million increase in external-related expenses, a \$3.4 million increase in share-based compensation expenses, a \$1.6 million increase in employee-related expenses, and a \$2.7 million decrease in facilities, depreciation and other allocated expenses.

The \$15.6 million increase in external-related expenses was primarily due to our ongoing late-stage clinical programs in TD-1473, amprelosetine, as well as continued investment in our early-stage programs and partially offset by the termination of the Phase 3 Bacteremia study of VIBATIV in 2018. The \$3.4 million increase in share-based compensation expense was primarily due to the achievement of long-term share-based incentive bonuses. The \$1.6 million increase in employee-related expenses was primarily related to the achievement of long-term incentive cash bonuses and partially offset by lower salaries and other costs resulting from our workforce reduction in the first quarter of 2019. The \$2.7 million decrease in facilities, depreciation, and other allocated expenses was primarily due to lower lab supply and lower allocated costs resulting from the workforce reduction.

Under certain of our collaborative arrangements, we receive partial reimbursement of employee-related costs and external costs, which have been reflected as a reduction of R&D expenses of \$5.6 million, \$9.1 million and \$23.5 million for 2019, 2018 and 2017, respectively. The decrease in expense reimbursements in 2019 compared to 2018 was primarily attributed to the completion of the Phase 3 pivotal program and submission and approval of the NDA for YUPELRI.

Due primarily to the progression of our late stage clinical programs and advancement of our research programs into the clinic, we anticipate our future R&D expenses will increase over current levels.

### **Selling, General & Administrative**

Selling, general and administrative expenses, as compared to the prior years, were as follows:

(In thousands)	Year Ended December 31,			Change			
				2019		2018	
	2019	2018	2017	\$	%	\$	%
Selling, general and administrative	\$ 106,081	\$ 97,058	\$ 95,592	\$ 9,023	9 %	\$ 1,466	2 %

Selling, general and administrative expenses increased by \$9.0 million in 2019 compared to 2018. The increase was primarily due to a \$5.7 million increase in share-based compensation expense, a \$2.2 million increase in facilities, depreciation and other allocated expenses, a \$1.6 million increase in YUPELRI collaboration loss, and a \$0.5 million decrease in employee-related expenses.

The \$5.7 million increase in share-based compensation expense was primarily due to the achievement of long-term share-based incentive bonuses. The \$2.2 million increase in facilities, depreciation and other allocated expenses was primarily due to higher an absorption of allocated overhead costs following the workforce reduction in the first quarter of 2019 that resulted in the selling, general & administrative headcount to be proportionately higher compared to

prior to the workforce reduction. The \$1.6 million increase in YUPELRI collaboration loss was due to the formal launch of YUPELRI in early 2019, and the \$0.5 million decrease in employee-related expenses was primarily due to the workforce reduction in the first quarter of 2019.

Share-based compensation expense related to selling, general and administrative expenses was \$31.5 million, \$25.8 million, and \$26.5 million in 2019, 2018 and 2017, respectively.

**Income from Investment in TRC, LLC (“TRC”)**

Income from investment in TRC, as compared to the prior years, was as follows:

(In thousands)	Year Ended December 31,			Change			
				2019		2018	
	2019	2018	2017	\$	%	\$	%
Income from investment in TRC, LLC	\$ 33,705	\$ 11,182	\$ 170	\$ 22,523	201 %	\$ 11,012	NM %

NM: Not Meaningful

The income from investment in TRC, LLC represents our share of the royalty payments from GSK to TRC on the net sales of TRELEGY ELLIPTA (net of our share of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters) which was launched in the fourth quarter of 2017.

Income from investment in TRC was \$33.7 million in 2019 compared to \$11.2 million in 2018. Our share of TRC expenses in 2019 was \$2.7 million, which was primarily comprised of TRC’s legal and related fees associated with the arbitration between Innoviva and TRC and us. There were minimal TRC expenses recognized in 2018 and 2017.

In connection with the issuance of our \$237.5 million net principal amount Non-Recourse 2033 Notes in November 2018, 75% of the income from our investment in TRC is available only for payment of the Non-Recourse 2033 Notes and is not available to pay other creditor obligations or claims.

**Interest Expense**

Interest expense primarily consists of interest payments due on the Convertible Senior 2023 Notes and the Non-Recourse 2033 Notes, as well as, the amortization of the associated debt issuance costs. Interest expense, as compared to the prior years, was as follows:

(In thousands)	Year Ended December 31,			Change			
				2019		2018	
	2019	2018	2017	\$	%	\$	%
Interest expense	\$ 31,862	\$ 10,482	\$ 8,547	\$ 21,380	204 %	\$ 1,935	23 %

Interest expense increased to \$31.9 million in 2019 compared to \$10.5 million in 2018. The \$21.4 million increase in 2019 compared to 2018 was due to additional interest expense related to the issuance of the Non-Recourse 2033 Notes in November 2018.

**Other-Than-Temporary Impairment Loss**

Other-than-temporary impairment loss, as compared to the prior years, was as follows:

(In thousands)	Year Ended December 31,			Change			
				2019		2018	
	2019	2018	2017	\$	%	\$	%
Other-than-temporary impairment loss	\$ —	\$ —	\$ 8,000	\$ —	— %	\$ (8,000)	NM %

NM: Not Meaningful

In 2017, we recognized an impairment loss of \$8.0 million on our investment in Trek Therapeutics, PBC, a non-marketable equity security, which we determined to be other-than-temporary. We had no such losses recognized in 2019 and 2018.

### **Interest and Other Income**

Interest and other income, as compared to the prior years, was as follows:

(In thousands)	Year Ended December 31,			Change			
				2019		2018	
	2019	2018	2017	\$	%	\$	%
Interest and other income, net	\$ 8,395	\$ 11,966	\$ 4,789	\$ (3,571)	(30)%	\$ 7,177	150 %

Interest and other income decreased \$3.6 million in 2019 compared 2018. The \$3.6 million decrease was primarily due to a \$6.1 million net gain recognized from the sale of our VIBATIV business to Cumberland in November 2018 and was partially offset by an increase in interest income earned from higher investment balances following the issuance of the Non-Recourse 2033 Notes in November 2018. In 2019, we also recognized \$0.8 million in royalty income from Cumberland generated from VIBATIV product sales.

### **Provision for Income Tax Benefit (Expense)**

Provision for income tax benefit (expense), as compared to the prior years, was as follows:

(In thousands)	Year Ended December 31,			Change			
				2019		2018	
	2019	2018	2017	\$	%	\$	%
Provision for income tax benefit (expense)	\$ 5,222	\$ 10,561	\$ (13,694)	\$ (5,339)	(51)%	\$ 24,255	(177)%

The 2019 benefit for income taxes of \$5.2 million was primarily due to a reversal of previously accrued contingent tax liabilities for uncertain tax positions due to a lapse of the statute of limitations and current year US research and development credits.

The 2018 benefit for income taxes of \$10.6 million was primarily due to additional tax loss generated in 2017 by the US entity as a result of the finalization of our transfer pricing policy, current year US research and development credit, and the release of previously recorded contingent tax liabilities due to the lapse of the statute of limitations. The provision for income tax recorded in 2017 was primarily a result of contingent tax liabilities related to uncertain tax positions taken with respect to transfer pricing and tax credits.

### **Liquidity and Capital Resources**

We have financed our operations primarily through public offering of equity and debt securities, private placements of equity and debt, revenue from collaboration arrangements and, to a lesser extent, revenue from product sales. As of December 31, 2019, we had approximately \$285.8 million in cash, cash equivalents, and investments in marketable securities (excluding restricted cash). Also, as of December 31, 2019, we had outstanding (i) \$230.0 million in aggregate principal Convertible Senior 2023 Notes and (ii) \$235.3 million in principal Non-Recourse 2033 Notes which are stated net of a 5.0% retention by us as discussed in “Item 1, Business - Economic Interest in GSK-Partnered Respiratory Programs—Theravance Respiratory Company, LLC” of this Annual Report on Form 10-K.

The Non-Recourse 2033 Notes are secured by all of the Triple Royalty Sub LLC’s (the “Issuer”) rights, title and interest as a holder of the Issuer Class C Units in TRC. The primary source of funds to make payments on the Non-Recourse 2033 Notes will be the 63.75% economic interest of the Issuer (evidenced by the Issuer Class C Units) in any future payments that may be made by GSK to TRC under the strategic alliance agreement and under the portion of the collaboration agreement assigned to TRC by Innoviva (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters) relating to the GSK-Partnered Respiratory Programs, including the TRELEGY ELLIPTA program. As a result, the holders of the Non-

Recourse 2033 Notes have no recourse against Theravance Biopharma even if the TRELEGY ELLIPTA payments are insufficient to cover the principal and interest payments for the Non-Recourse 2033 Notes.

*Refinancing of Non-Recourse 2033 Notes*

On February 21, 2020, Theravance Biopharma R&D, Inc., a Cayman Islands exempted company (“Theravance R&D”), a wholly-owned subsidiary of the Company, and Triple Royalty Sub II LLC, a Delaware limited liability company (the “Issuer II”) and wholly-owned subsidiary of Theravance Biopharma R&D, entered into certain note purchase agreements (each, a “Note Purchase Agreement” and collectively, the “Note Purchase Agreements”), with the note purchaser or note purchasers referenced therein (each, a “Note Purchaser” and collectively, the “Note Purchasers”), relating to the private placement by the Issuer II to the Note Purchasers of \$400.0 million aggregate principal amount of the Issuer II’s non-recourse Triple II 9.5% Fixed Rate Term Notes due on or before 2035 (the “Non-Recourse 2035 Notes”) expected to be issued under an Indenture by and between Issuer II and US Bank National Association, a national banking association, as initial trustee. 95% of the Non-Recourse 2035 Notes are expected to be sold to the Note Purchasers pursuant to the Note Purchase Agreements. The remaining 5% of the Non-Recourse 2035 Notes (the “Retained Notes”) are expected to be retained by the Company in order to comply with Regulation RR — Credit Risk Retention (17 C.F.R. Part 246) and are expected to be eliminated in the Company’s consolidated financial statements. Issuance of the Non-Recourse 2035 Notes is subject to the satisfaction of certain customary conditions.

The Non-Recourse 2035 Notes are expected to be secured by all of Issuer II’s right, title and interest as a holder of certain membership interests (the “Issuer II Class C Units”) in TRC. The primary source of funds to make payments on the Non-Recourse 2035 Notes are expected to be the 63.75% economic interest of the Issuer II (evidenced by the Issuer II Class C Units) in any future payments made by GSK to TRC under the collaboration agreement, dated as of November 14, 2002, by and between Innoviva and GSK, as amended from time to time (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters) relating to the TRELEGY ELLIPTA program. The proceeds from the issuance are expected to be used to repay in full the remaining outstanding balance of the Non-Recourse 2033 Notes and/or for other general purposes.

See information regarding the results of our arbitration involving TRC in “*Item 1, Business – Theravance Respiratory Company, LLC*” of this Annual Report on Form 10-K.

We expect to continue to incur net losses over at least the next several years due to significant expenditures relating to our continuing drug discovery efforts, preclinical and clinical development of our current product candidates and commercialization costs relating to YUPELRI. In particular, to the extent we advance our product candidates into and through later-stage clinical studies without a partner, we will incur substantial expenses. We expect the clinical development of our key development programs will require significant investment in order to continue to advance in clinical development. In addition, we expect to invest strategically in our research efforts to continue to grow our development pipeline. In the past, we have received a number of significant payments from collaboration agreements and other significant transactions. In the future, we may continue to receive potential substantial payments from future collaboration transactions if the drug candidates in our pipeline achieve positive clinical or regulatory outcomes or if our product candidates are approved and meet certain milestones. Our current business plan is subject to significant uncertainties and risks as a result of, among other factors, clinical program outcomes, whether, when and on what terms we are able to enter into new collaboration arrangements, expenses being higher than anticipated, the sales levels of any approved products, unplanned expenses, cash receipts being lower than anticipated, and the need to satisfy contingent liabilities, including litigation matters and indemnification obligations.

*Adequacy of cash resources to meet future needs*

We expect our cash and cash equivalents and marketable securities will be sufficient to fund our operations for at least the next 12 months from the issuance date of these consolidated financial statements based on current operating plans and financial forecasts.

On February 12, 2020, we sold 5,500,000 ordinary shares at a price to the public of \$27.00 per share (the “Shares”). The gross proceeds from the offering were approximately \$148.5 million, before deducting underwriting discounts and commissions and estimated offering expenses. The Shares were issued pursuant to our currently effective

shelf registration statement on Form S-3 and an accompanying prospectus (File No. 333-235339) filed with the SEC, which became effective automatically on December 3, 2019, and a prospectus supplement filed with the SEC in connection with the offering.

We may seek to obtain additional financing in the form of public or private equity offerings, debt financing or additional collaborations and licensing arrangements. However, future financing may not be available in amounts or on terms acceptable to us.

Without adequate financial resources to fund our operations as presently conducted, we may be required to relinquish rights to our technologies, product candidates or territories, or grant licenses on terms that are not favorable to us, in order to raise additional funds through collaborations or licensing arrangements. We may also have to sequence preclinical and clinical studies as opposed to conducting them concomitantly in order to conserve resources, or delay, reduce or eliminate one or more of our research or development programs and reduce overall overhead expenses. In addition, we may have to make reductions in our workforce and may be prevented from continuing our discovery, development and commercialization efforts and exploiting other corporate opportunities.

### **Cash Flows**

Cash flows, as compared to the prior years, were as follows:

<b>(In thousands)</b>	<b>Year Ended December 31,</b>			<b>Change</b>	
	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2019</b>	<b>2018</b>
Net cash used in operating activities	\$ (238,197)	\$ (112,867)	\$ (201,052)	\$ (125,330)	\$ 88,185
Net cash (used in) provided by investing activities	(83,051)	176,708	(56,333)	(259,759)	233,041
Net cash provided by financing activities	1,291	225,200	1,656	(223,909)	223,544

#### *Net cash flows used in operating activities*

Net cash used in operating activities was \$238.2 million in 2019, consisting primarily of a net loss of \$236.5 million, a net increase in cash resulting from adjustments for total non-cash and other reconciling items of \$43.7 million and a net decrease in cash resulting from changes in operating assets and liabilities of \$45.4 million. Overall, net cash used in operating activities increased by \$125.3 million compared to 2018 and was primarily due to (i) an increase in our net loss of \$20.6 million; and (ii) the receipt of the upfront payment of \$100.0 million from Janssen in February 2018, following the execution of the global co-development and commercialization agreement for TD-1473 and related back-up compounds for inflammatory intestinal diseases between the two companies.

Net cash used in operating activities was \$112.9 million in 2018, consisting primarily of a net loss of \$215.5 million, a net increase in cash resulting from adjustments for total non-cash and other reconciling items of \$43.2 million and a net increase in cash resulting from changes in operating assets and liabilities of \$59.4 million. Overall, net cash used in operating activities decreased by \$88.2 million compared to 2017 and was primarily due to (i) a reduction in our net loss of \$69.9 million; and (ii) the receipt of the upfront payment of \$100.0 million from Janssen in February 2018, following the execution of the global co-development and commercialization agreement for TD-1473 and related back-up compounds for inflammatory intestinal diseases between the two companies.

#### *Net cash flows (used in) provided by investing activities*

Net cash used in investing activities was \$83.1 million in 2019 and was primarily attributed to cash outflows resulting from net purchases and maturities of marketable securities of \$84.9 million.

Net cash provided by investing activities was \$176.7 million in 2018, consisting of maturities of marketable securities of \$347.2 million and \$20.0 million in proceeds from the VIBATIV sale. These inflows were partially offset by outflows related to purchases of marketable securities of \$183.3 million and the acquisition of property and equipment of \$7.2 million.

*Net cash flows provided by financing activities*

Net cash provided by financing activities was \$1.3 million in 2019, consisting of \$6.6 million of cash inflows from employee share plan purchase proceeds and share option exercises which was partially offset by \$3.2 million of net cash outflows related to the repurchase of shares to satisfy tax withholding obligations and \$2.2 million of net cash outflows related to the principal paydown of our Non-Recourse 2033 Notes.

Net cash provided by financing activities was \$225.2 million in 2018, consisting of net proceeds from the issuance of our Non-Recourse 2033 Notes of \$229.4 million, \$5.6 million in share option exercises and employee share plan purchases, and partially offset by \$9.8 million related to the repurchase of shares to satisfy tax withholdings associated with vested options.

**Contractual Obligations and Commercial Commitments**

In the table below, we set forth our significant obligations and future commitments, as well as obligations related to all contracts that we are likely to continue, regardless of the fact that they were cancelable as of December 31, 2019. Some of the figures that we include in this table are based on management’s estimate and assumptions about these obligations, including their duration. Because these estimates and assumptions are necessarily subjective, the amount of the obligations we will actually pay in future periods may vary from those reflected in the table.

(In thousands)	Years				
	Total	Within 1	Over 1 to 3	Over 3 to 5	After 5
3.25% Convertible senior notes due 2023 - principal	\$ 230,000	\$ —	\$ —	\$ 230,000	\$ —
3.25% Convertible senior notes due 2023 - interest	28,675	7,475	14,950	6,250	—
9.0% Non-recourse notes due 2033 – principal *	235,347	*	*	*	*
Facility operating leases <sup>(1)</sup>	105,943	6,526	19,225	20,332	59,860
Purchase obligations <sup>(2)</sup>	329,638	155,374	137,446	24,812	12,006
Total	<u>\$ 929,603</u>	<u>\$ 169,375</u>	<u>\$ 171,621</u>	<u>\$ 281,394</u>	<u>\$ 71,866</u>

\* The Non-Recourse 2033 Notes are secured by the Issuer’s right, title, and interest in TRC. The primary source of funds to make payments on the Non-Recourse 2033 Notes is the 63.75% economic interest of the Issuer in any future payments made by GSK under the collaboration agreement, dated as of November 14, 2002, by and between Innoviva and GSK relating to the TRELEGY ELLIPTA program. In addition, prior to October 15, 2020, in the event that the distributions received by the Issuer from TRC in a quarter is less than the interest accrued for the quarter, the principal amount of the Non-Recourse 2033 Notes will increase by the interest shortfall amount for that period. Since the timing of the principal and interest payments on the Non-Recourse 2033 Notes are ultimately based on royalties from TRELEGY ELLIPTA product sales, which will vary from quarter to quarter and are unknown to us, only the total net principal payment amount at issuance is included in the above table. See “Item 8, Note 7. Long-Term Debt” of the accompanying consolidated financial statements for further information.

- (1) As security for performance of certain obligations under the operating leases for our principal physical properties, we issued a letter of credit in the amount of \$0.8 million, collateralized by an equal amount of restricted cash.
- (2) Substantially all of this amount was subject to open purchase orders, as of December 31, 2019, that were issued under existing contracts. This amount does not represent any minimum contract termination liabilities for our existing contracts.

### ***Commitments and Contingencies***

We indemnify our officers and directors for certain events or occurrences, subject to certain limits. We believe the fair value of these indemnification agreements is minimal. Accordingly, we have not recognized any liabilities relating to these agreements as of December 31, 2019.

#### ***Performance-Contingent Awards***

In 2016, we granted long-term retention and incentive restricted share awards (“RSAs”) and restricted share units (“RSUs”) to members of senior management and long-term retention and incentive cash bonus awards to certain employees. The vesting and payout of such awards is dependent on meeting certain operating goals and objectives during the five-year period from 2016 to December 31, 2020. These goals are strategically important for us, and we believe the goals, if achieved, will increase shareholder value. The awards have dual triggers of vesting based upon the achievement of these goals and continued employment, and they are broken into three separate tranches. We recognize compensation expense relating to awards subject to performance conditions if it is considered probable that the performance goals will be achieved. The probability of achievement is reassessed at each quarter-end reporting period. Previously recognized expense is reversed in the period in which it becomes probable that the requisite service period will not be rendered.

We determined that achievement of the requisite performance conditions for the first tranche was completed in June 2018, and the expense associated with this first tranche has been fully recognized. We determined that achievement of the requisite performance conditions for the second tranche were completed in February 2019. For the year ended December 31, 2019, we recognized \$1.9 million and \$2.4 million of share-based compensation expense and cash bonus expense, respectively, related to the second tranche of these awards. As of December 31, 2019, the maximum remaining share-based compensation expense and cash bonus expense associated with the second tranche was \$0.4 million and \$0.5 million, respectively.

In December 2019, we determined that the requisite performance conditions for the third tranche was probable of vesting. For the year ended December 31, 2019, we recognized \$9.8 million and \$11.8 million of share-based compensation expense and cash bonus expense, respectively, related to the third tranche of these awards. As of December 31, 2019, the maximum remaining share-based compensation expense and cash bonus expense associated with the third tranche was \$2.9 million and \$3.5 million, respectively.

Separate from the performance-contingent awards described above, we periodically grant performance-contingent RSUs to individual employees. For the year ended December 31, 2019, we recognized \$1.0 million of share-based compensation expense related to such awards. As of December 31, 2019, there were 173,000 shares of these performance-contingent RSUs outstanding that have a maximum remaining share-based compensation expense of \$2.6 million with performance expiration dates ranging from December 2020 to June 2022.

#### ***Off-Balance Sheet Arrangements***

Our equity interest in TRC constitutes an off-balance sheet arrangement. Under the agreement governing TRC, the manager of TRC may request quarterly capital contributions from us to fund the operating costs of TRC; however, we are not obligated to make such contributions. Our equity interest in TRC entitles us to an 85% economic interest in any future payments, which includes royalties and milestone payments, made by GSK under the strategic alliance agreement and under the portion of the collaboration agreement assigned to TRC by Innoviva (the “GSK Agreements”). We have determined TRC to be a variable interest entity that is not consolidated in our financial statements. The potential importance of TRC to our future financial condition and results of operations is dependent upon the progression of drug candidates covered by the GSK Agreements through development to commercialization and the rate of commercialization for approved drugs covered by the GSK Agreements. We rely on publicly available information about those drug candidates as we do not have access to confidential information regarding their progression or status.

#### ***Recent Accounting Pronouncements***

The information required by this item is included in “*Item 8, Note 1. Organization and Summary of Significant Accounting Policies,*” in our consolidated financial statements included in this Annual Report on Form 10-K.

## **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We are exposed to market risks in the ordinary course of our business. These risks primarily include risk related to interest rate sensitivities.

### **Interest Rate Sensitivity**

We have invested primarily in money market funds, federal agency notes, corporate debt securities, commercial papers and US treasury notes. To reduce the volatility relating to these exposures, we have put investment and risk management policies and procedures in place. The securities in our investment portfolio are not leveraged and are classified as available-for-sale due to their short-term nature. We currently do not engage in hedging activities.

We performed a sensitivity analysis to determine the impact a change in interest rates would have on the value of our investment portfolio. As of December 31, 2019 and 2018, we have estimated that a hypothetical 100 basis point increase in interest rates would have resulted in a decrease in the fair market value of our investment portfolio of \$0.8 million and \$0.5 million, respectively. Such losses would only be realized if we sold the investments prior to maturity.

We are also subject to interest rate sensitivity on our outstanding Convertible Senior 2023 Notes that were issued in November 2016 and our Non-Recourse 2033 Notes that were issued in November 2018. Increases in interest rates would result in a decrease in the fair value of our outstanding debt and decreases in interest rates would result in an increase in the fair value of our outstanding debt. These decreases or increases in the fair value of our outstanding debt would be partially offset by corresponding decreases or increases in our fixed income investment portfolio. The Convertible Senior 2023 Notes pay interest semi-annually, and the \$230.0 million of principal is scheduled to be repaid in 2023. The Non-Recourse 2033 Notes pay interest and principal quarterly, and the remaining net principal of \$235.3 million is due by 2033.



**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

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## Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Theravance Biopharma, Inc.

### Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Theravance Biopharma, Inc. (the “Company”) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive loss, shareholders’ equity (deficit), and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) and our report dated February 27, 2020 expressed an unqualified opinion thereon.

### Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

### Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

#### ***Revenue from collaborative and licensing arrangements***

*Description of  
the Matter*

The Company recognized revenue from collaboration and licensing agreements of \$73.4 million for the year ended December 31, 2019. As described in Note 1, collaboration payment structures may include many elements such as up-front fees, milestones, royalties, expense reimbursement, and/or profit sharing. Furthermore, collaborations may include the delivery of various goods or services to the collaborative partner such as licenses to intellectual property or research and development services. In some circumstances, management is required to use judgment to determine whether analogies to the revenue accounting literature is appropriate for elements of collaboration arrangements. Of the \$73.4 million recognized as revenue, collaboration revenue of

\$31.1 million was recognized for the research and development services under the agreement with Janssen Biotech, Inc. (the “Janssen Agreement”). Performance is measured based on the Company’s efforts toward satisfying the performance obligation relative to the total expected efforts or inputs to satisfy the performance obligation (e.g., costs incurred compared to total budget).

Auditing the Company’s accounting for revenues from collaboration arrangements was especially challenging due to the complex and highly judgmental nature of evaluating the terms of the related agreements, identifying performance obligations, evaluating whether analogies to the revenue accounting guidance are appropriate, determining and allocating the transaction price to the performance obligations, evaluating estimates of the expected efforts to complete performance obligations and measuring efforts toward satisfying those performance obligations, especially as such measuring of efforts relates to the Janssen Agreement.

*How We  
Addressed the  
Matter in Our  
Audit*

We obtained an understanding, evaluated the design, and tested the operating effectiveness of controls over the Company’s processes for assessing the accounting treatment of any new collaboration agreements or modifications to existing collaboration agreements, establishing an estimated budget of costs, assessing the effort to satisfy performance obligations, and recording actual costs incurred including controls over the completeness and accuracy of data used in the underlying analyses.

To test the accounting for revenue from collaboration arrangements we tested and evaluated, among other things, the performance obligations identified, the estimates and assumptions used to determine transaction price, and the allocation of transaction price to performance obligations. We assessed whether management’s analogies to the revenue literature was a consistent and rational application of accounting policy. To test the measurement of efforts toward satisfying performance obligations, our audit procedures included, among others, reviewing management’s analysis for accuracy and completeness by agreeing data to underlying agreements, and inspecting communications with collaboration partners. Our audit procedures specific to the recording of revenues under the Janssen Agreement focused on evaluating the measure of progress based on costs incurred including performing corroborative inquiries with those outside of the finance department, performing sensitivity analyses of key inputs, evaluating the historical accuracy of management’s budgeted cost estimates, and inspecting evidence of actual costs incurred.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 2013.

Redwood City, California  
February 27, 2020

**THERAVANCE BIOPHARMA, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(In thousands, except per share data)

	December 31, 2019	December 31, 2018
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 58,064	\$ 378,021
Short-term marketable securities	222,767	127,255
Accounts receivable, net of allowances of \$0 at December 31, 2019 and 2018	—	620
Receivables from collaborative arrangements	11,996	10,053
Receivables from licensing arrangements	10,000	—
Amounts due from TRC, LLC	28,574	5,422
Other prepaid and current assets	7,087	11,452
Total current assets	338,488	532,823
Property and equipment, net	12,644	13,176
Long-term marketable securities	4,985	11,869
Operating lease assets	46,604	—
Tax receivable	3,682	—
Restricted cash	833	833
Other assets	1,590	1,534
Total assets	<u>\$ 408,826</u>	<u>\$ 560,235</u>
<b>Liabilities and Shareholders' Deficit</b>		
Current liabilities:		
Accounts payable	\$ 4,758	\$ 9,028
Accrued personnel-related expenses	28,180	23,803
Accrued clinical and development expenses	17,587	11,876
Accrued interest payable	5,659	3,086
Non-recourse notes due 2033, net	9,851	—
Operating lease liabilities	7,762	—
Deferred revenue	31,575	43,402
Other accrued liabilities	6,331	7,359
Total current liabilities	111,703	98,554
Convertible senior notes due 2023, net	225,890	224,818
Non-recourse notes due 2033, net	219,300	229,535
Deferred rent	—	7,976
Long-term operating lease liabilities	47,725	—
Long-term deferred revenue	6,761	26,179
Other long-term liabilities	21,287	24,762
Commitments and contingencies (Notes 11 and 13)		
<b>Shareholders' Deficit</b>		
Preferred shares, \$0.00001 par value: 230 shares authorized, no shares issued or outstanding	—	—
Ordinary shares, \$0.00001 par value: 200,000 shares authorized; 57,015 and 55,681 shares issued and outstanding at December 31, 2019 and 2018, respectively	1	1
Additional paid-in capital	1,024,614	960,721
Accumulated other comprehensive income (loss)	145	(166)
Accumulated deficit	(1,248,600)	(1,012,145)
Total shareholders' deficit	(223,840)	(51,589)
Total liabilities and shareholders' deficit	<u>\$ 408,826</u>	<u>\$ 560,235</u>

*See accompanying notes to consolidated financial statements*

**THERAVANCE BIOPHARMA, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(In thousands, except per share data)

	Year Ended December 31,		
	2019	2018	2017
<b>Revenue:</b>			
Product sales	\$ —	\$ 15,304	\$ 14,788
Collaboration revenue	31,250	41,791	598
Licensing revenue	28,500	—	—
Mylan collaboration agreement	13,664	3,275	—
Total revenue	<u>73,414</u>	<u>60,370</u>	<u>15,386</u>
<b>Costs and expenses:</b>			
Cost of goods sold	—	715	6,030
Research and development (1)	219,248	201,348	173,887
Selling, general and administrative (1)	106,081	97,058	95,592
Total costs and expenses	<u>325,329</u>	<u>299,121</u>	<u>275,509</u>
Loss from operations	(251,915)	(238,751)	(260,123)
Income from investment in TRC, LLC	33,705	11,182	170
Interest expense	(31,862)	(10,482)	(8,547)
Other-than-temporary impairment loss	—	—	(8,000)
Interest and other income, net	8,395	11,966	4,789
Loss before income taxes	(241,677)	(226,085)	(271,711)
Provision for income tax benefit (expense)	5,222	10,561	(13,694)
Net loss	<u>\$ (236,455)</u>	<u>\$ (215,524)</u>	<u>\$ (285,405)</u>
<b>Net loss per share:</b>			
Basic and diluted net loss per share	<u>\$ (4.25)</u>	<u>\$ (3.99)</u>	<u>\$ (5.45)</u>
Shares used to compute basic and diluted net loss per share	<u>55,610</u>	<u>53,969</u>	<u>52,352</u>

(1) Amounts include share-based compensation expense as follows:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Research and development	\$ 28,953	\$ 25,563	\$ 22,691
Selling, general and administrative	31,497	25,750	26,454
Total share-based compensation expense	<u>\$ 60,450</u>	<u>\$ 51,313</u>	<u>\$ 49,145</u>

*See accompanying notes to consolidated financial statements.*

**THERAVANCE BIOPHARMA, INC.**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**  
**(In thousands)**

	<u>Year Ended December 31,</u>		
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Net loss	\$ (236,455)	\$ (215,524)	\$ (285,405)
Other comprehensive income (loss):			
Net unrealized gain (loss) on available-for-sale investments, net of tax	311	567	(480)
Comprehensive loss	<u>\$ (236,144)</u>	<u>\$ (214,957)</u>	<u>\$ (285,885)</u>

*See accompanying notes to consolidated financial statements.*

**THERAVANCE BIOPHARMA, INC.**  
**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (DEFICIT)**  
(In thousands)

	Ordinary Shares		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Shareholders' Equity (Deficit)
	Shares	Amount				
Balances at December 31, 2016	52,833	\$ 1	\$ 862,708	\$ (253)	\$ (512,225)	\$ 350,231
Net proceeds from sale of ordinary shares	—	—	1	—	—	1
Proceeds from ESPP purchases	250	—	3,980	—	—	3,980
Employee share-based compensation expense	—	—	49,175	—	—	49,175
Issuance of restricted shares	1,025	—	—	—	—	—
Option exercises	276	—	6,236	—	—	6,236
Cumulative effect upon the adoption of ASU 2016-09	—	—	110	—	(110)	—
Repurchase of shares to satisfy tax withholding	(3)	—	(8,560)	—	—	(8,560)
Net unrealized loss on marketable securities	—	—	—	(480)	—	(480)
Net loss	—	—	—	—	(285,405)	(285,405)
Balances at December 31, 2017	54,381	\$ 1	\$ 913,650	\$ (733)	\$ (797,740)	\$ 115,178
Proceeds from ESPP purchases	204	—	4,173	—	—	4,173
Employee share-based compensation expense	—	—	51,313	—	—	51,313
Issuance of restricted shares	1,168	—	—	—	—	—
Option exercises	75	—	1,393	—	—	1,393
Cumulative effect upon the adoption of ASC 606	—	—	—	—	1,119	1,119
Repurchase of shares to satisfy tax withholding	(147)	—	(9,808)	—	—	(9,808)
Net unrealized gain on marketable securities	—	—	—	567	—	567
Net loss	—	—	—	—	(215,524)	(215,524)
Balances at December 31, 2018	55,681	\$ 1	\$ 960,721	\$ (166)	\$ (1,012,145)	\$ (51,589)
Proceeds from ESPP purchases	203	—	3,474	—	—	3,474
Employee share-based compensation expense	—	—	60,450	—	—	60,450
Issuance of restricted shares	1,105	—	—	—	—	—
Option exercises	164	—	3,142	—	—	3,142
Repurchase of shares to satisfy tax withholding	(138)	—	(3,173)	—	—	(3,173)
Net unrealized gain on marketable securities	—	—	—	311	—	311
Net loss	—	—	—	—	(236,455)	(236,455)
Balances at December 31, 2019	<u>57,015</u>	<u>\$ 1</u>	<u>\$ 1,024,614</u>	<u>\$ 145</u>	<u>\$ (1,248,600)</u>	<u>\$ (223,840)</u>

*See accompanying notes to consolidated financial statements.*

**THERAVANCE BIOPHARMA, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(In thousands)

	Year Ended December 31,		
	2019	2018	2017
<b>Operating activities</b>			
Net loss	\$ (236,455)	\$ (215,524)	\$ (285,405)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	6,441	4,481	3,801
Amortization and accretion income, net	(3,451)	(1,315)	226
Share-based compensation	60,450	51,313	49,145
Net gain from the sale of VIBATIV business	—	(6,056)	—
Other-than-temporary impairment loss	—	—	8,000
Inventory write-down	—	—	740
Amortization of right-of-use assets	3,224	—	—
Amounts due from TRC, LLC	(23,152)	(5,152)	—
Other	146	(43)	10
Changes in operating assets and liabilities:			
Accounts receivable	620	1,633	(1,607)
Receivables from collaborative and licensing arrangements	(11,943)	(2,944)	1,967
Prepaid taxes	—	—	2,788
Other prepaid and current assets	(634)	(2,400)	(1,489)
Inventories	—	(1,629)	(7,301)
Tax receivable	(3,700)	8,191	(7,890)
Other assets	(358)	45	(354)
Accounts payable	(4,274)	3,575	3,796
Accrued personnel-related expenses, accrued clinical and development expenses, and other accrued liabilities	10,626	(12,357)	8,332
Accrued interest payable	2,573	1,841	21
Deferred rent	—	4,308	(298)
Deferred revenue	(31,245)	69,224	17
Operating lease liabilities	(2,317)	—	—
Other long-term liabilities	(4,748)	(10,058)	24,449
Net cash used in operating activities	<u>(238,197)</u>	<u>(112,867)</u>	<u>(201,052)</u>
<b>Investing activities</b>			
Purchases of property and equipment	(3,176)	(7,240)	(2,406)
Purchases of marketable securities	(423,898)	(183,261)	(288,791)
Maturities of marketable securities	339,018	347,192	234,864
Proceeds from the sale of VIBATIV business, net	5,000	20,000	—
Proceeds from the sale of fixed assets	5	17	—
Net cash (used in) provided by investing activities	<u>(83,051)</u>	<u>176,708</u>	<u>(56,333)</u>
<b>Financing activities</b>			
Proceeds from issuance of notes, net	—	229,441	—
Principal payment on notes	(2,152)	—	—
Proceeds from ESPP purchases	3,474	4,173	3,980
Proceeds from option exercises	3,142	1,393	6,236
Repurchase of shares to satisfy tax withholding	(3,173)	(9,807)	(8,560)
Net cash provided by financing activities	<u>1,291</u>	<u>225,200</u>	<u>1,656</u>
<b>Net (decrease) increase in cash, cash equivalents, and restricted cash</b>	<u>(319,957)</u>	<u>289,041</u>	<u>(255,729)</u>
<b>Cash, cash equivalents, and restricted cash at beginning of period</b>	<u>378,854</u>	<u>89,813</u>	<u>345,542</u>
<b>Cash, cash equivalents, and restricted cash at end of period</b>	<u>\$ 58,897</u>	<u>\$ 378,854</u>	<u>\$ 89,813</u>
<b>Supplemental disclosure of cash flow information</b>			
Cash paid for interest	\$ 26,178	\$ 7,475	\$ 7,454
Cash paid (received) for income taxes, net	\$ 22	\$ (7,316)	\$ 4,929
Right-of-use assets obtained in exchange for lease obligations (1)	\$ 49,847	\$ —	\$ —

(1) Amounts for the year ended December 31, 2019 include the transition adjustment for the adoption of ASC 842.

*See accompanying notes to consolidated financial statements.*



**THERAVANCE BIOPHARMA, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Organization and Summary of Significant Accounting Policies**

Theravance Biopharma, Inc. (“Theravance Biopharma” or the “Company”) is a diversified biopharmaceutical company primarily focused on the discovery, development and commercialization of organ-selective medicines. The Company’s purpose is to create transformational medicines to improve the lives of patients suffering from serious illnesses. The Company’s research is focused in the areas of inflammation and immunology.

***Basis of Presentation***

The Company’s consolidated financial statements have been prepared in conformity with United States (“US”) Generally Accepted Accounting Principles (“GAAP”), and the US Securities and Exchange (“SEC”) regulations for annual reporting.

***Principles of Consolidation***

The consolidated financial statements include the accounts of Theravance Biopharma and its wholly-owned subsidiaries, all of which are denominated in US dollars. All intercompany balances and transactions have been eliminated in consolidation.

***Use of Estimates***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures in the consolidated financial statements and accompanying notes. Management bases its estimates on historical experience and on assumptions believed to be reasonable under the circumstances. Actual results could differ materially from those estimates.

***Segment Reporting***

The Company operates in a single segment, which is the discovery (research), development and commercialization of human therapeutics. The Company’s business offerings have similar economics and other characteristics, including the nature of products and manufacturing processes, types of customers, distribution methods and regulatory environment. The Company is comprehensively managed as one business segment by the Company’s Chief Executive Officer and the management team. Product sales are attributed to regions based on ship-to location and revenue from collaborative arrangements, including royalty revenue, are attributed to regions based on the location of the collaboration partner. Revenue from profit sharing-type arrangements are attributed to the geographic market in which the products are sold. Capitalized property and equipment is predominantly located in the US.

***Cash and Cash Equivalents***

The Company considers all highly-liquid investments purchased with a maturity of three months or less on the date of purchase to be cash equivalents. Cash equivalents are carried at fair value.

***Restricted Cash***

The Company maintains restricted cash for certain debt servicing arrangements and for a letter of credit under its South San Francisco, California, facility lease. As of December 31, 2019 and 2018, restricted cash related to such arrangements was \$0.8 million.

***Investments in Marketable Securities***

The Company invests in marketable securities, primarily corporate notes, government bonds and government agency bonds. The Company classifies its marketable securities as available-for-sale securities and reports them at fair value in cash equivalents or marketable securities on the consolidated balance sheets with related unrealized gains and

losses included as a component of shareholders' equity (deficit). The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity, which is included in interest income and other income (loss) on the consolidated statements of operations. The cost of securities sold is based on the specific identification method. Realized gains and losses and declines in value judged to be other-than-temporary, if any, and interest and dividends on securities are included in interest and other income (loss).

The Company regularly reviews all of its investments for other-than-temporary declines in estimated fair value. The Company's review includes the consideration of the cause of the impairment, including the creditworthiness of the security issuers, the number of securities in unrealized loss positions, the severity and duration of the unrealized losses, whether the Company has the intent to sell the securities and whether it is more likely than not that the Company will be required to sell the securities before the recovery of their amortized cost basis. When the Company determines that the decline in estimated fair value of an investment is below the amortized cost basis and the decline is other-than-temporary, the Company reduces the carrying value of the security and recognizes a loss for the amount of such decline.

### ***Fair Value of Financial Instruments***

The Company defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

The Company's valuation techniques are based on observable and unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, while unobservable inputs reflect the Company's market assumptions. The Company classifies these inputs into the following hierarchy:

*Level 1* — Quoted prices for identical instruments in active markets.

*Level 2* — Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

*Level 3* — Unobservable inputs and little, if any, market activity for the assets.

Financial instruments include cash equivalents, marketable securities, non-marketable securities, accounts receivable, accounts payable, accrued liabilities and debt. The Company's cash equivalents and marketable securities are carried at estimated fair value and remeasured on a recurring basis. The carrying value of accounts receivable, receivables from collaborative arrangements, accounts payable and accrued liabilities approximate their estimated fair value due to the relatively short-term nature of these instruments. The fair value of the Company's debt is classified as a level 2 financial instrument and is disclosed in "Note 7. Long-Term Debt".

### ***Accounts Receivable***

Trade accounts receivable are recorded net of allowances for wholesaler chargebacks related to government rebate programs, cash discounts for prompt payment, distribution fees and sales discounts. Estimates for wholesaler chargebacks for government rebates and cash discounts are based on contractual terms, historical trends and the Company's expectations regarding the utilization rates for these programs. When appropriate, the Company provides for an allowance for doubtful accounts by reserving for specifically identified doubtful accounts. The Company performs periodic credit evaluations of its customers and generally does not require collateral. For the periods presented, the Company did not have any material write-offs of trade accounts receivable.

On November 12, 2018, the Company completed the sale of its assets related to the manufacture, marketing and sale of the VIBATIV product to Cumberland Pharmaceuticals Inc. ("Cumberland") pursuant to the Asset Purchase Agreement dated November 1, 2018. As a result, the remaining accounts receivable balance at December 31, 2018 related to product sales recognized prior to November 12, 2018. There was no remaining accounts receivable balance at December 31, 2019.

### **Concentration of Credit Risks**

The Company invests in a variety of financial instruments and, based on its policy, limits the amount of credit exposure with any one issuer, industry or geographic area for investments other than instruments backed by the US federal government.

### **Property and Equipment**

Property, equipment and leasehold improvements are stated at cost, net of accumulated depreciation and depreciated using the straight-line method as follows:

Leasehold improvements	Shorter of remaining lease terms or useful life
Equipment, furniture and fixtures	5 - 7 years
Software and computer equipment	3 - 5 years

### **Capitalized Software**

The Company capitalizes certain costs related to direct material and service costs for software obtained for internal use. Upon being placed in service, these costs and other future capitalizable costs related to the internal use software system integration will be depreciated over five years. There were no material capitalized software costs recorded for the years ended December 31, 2019 and 2018.

### **Impairment of Long-Lived Assets**

The Company's long-lived assets consists of property and equipment, operating lease assets and other assets. The carrying value of long-lived assets is reviewed for impairment whenever events or changes in circumstances indicate that the asset may not be recoverable. An impairment loss is recognized when the total of estimated future cash flows expected to result from the use of the asset and its eventual disposition is less than its carrying amount.

### **Deferred Rent**

Deferred rent consists of the difference between cash payments and the recognition of rent expense on a straight-line basis for the buildings the Company occupies. Rent expense is recognized ratably over the life of the leases. Because the Company's facility operating leases provide for rent increases over the terms of the leases, average annual rent expense during the initial years of the leases exceeded the Company's actual cash rent payments. Also included in deferred rent are lease incentives which are being recognized ratably over the life of the leases.

### **Revenue Recognition**

Prior to January 1, 2018, the Company recognized revenue under Accounting Standards Codification ("ASC"), Topic 605, *Revenue Recognition* ("ASC 605"). Under ASC 605, revenue is recognized when the four basic criteria of revenue recognition are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. Where the revenue recognition criteria was not met, the Company delayed the recognition of revenue by recording deferred revenue until such time that all criteria are met.

Effective January 1, 2018, the Company adopted ASC, Topic 606, *Revenue from Contracts with Customers* ("ASC 606") using the modified retrospective method. Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, an entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation.

At contract inception, once the contract is determined to be within the scope of ASC 606, the Company identifies the performance obligations in the contract by assessing whether the goods or services promised within each contract are distinct. The Company then recognizes revenue for the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Results for reporting periods beginning after January 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and continue to be reported under the accounting standards in effect for the prior period. The Company recorded a reduction to the opening balance of accumulated deficit of approximately \$1.1 million and a corresponding reduction in deferred revenue as of January 1, 2018 due to ASC 606's cumulative adoption impact on the Company's collaborative arrangements. The Company's revenue recognized in 2018 would not have been materially different under ASC 605 as compared to ASC 606.

*Product Sales*

On November 12, 2018, the Company completed the sale of its assets related to the manufacture, marketing and sale of the VIBATIV product to Cumberland pursuant to the Asset Purchase Agreement dated November 1, 2018. Up until that date, the Company sold VIBATIV in the US market by making the drug product available through a limited number of distributors, who sold VIBATIV to healthcare providers. Title and risk of loss transferred upon receipt by these distributors. The Company recognized VIBATIV product sales and related cost of product sales when the distributors obtained control of the drug product, which was at the time title transferred to the distributors.

The Company recorded sales on a net sales basis which included estimates of variable consideration. The variable consideration resulted from sales discounts, government-mandated rebates and chargebacks, distribution fees, estimated product returns and other deductions for sales made by the Company prior to the November 12, 2018 sale to Cumberland. The Company reflected such reductions in revenue as either an allowance to the related account receivable from the distributor, or as an accrued liability, depending on the nature of the sales deduction. Sales deductions were based on management's estimates that considered payor mix in target markets, industry benchmarks and historical experience. In general, these estimates took into consideration a range of possible outcomes which were probability-weighted in accordance with the expected value method in ASC 606. The Company monitored inventory levels in the distribution channel, as well as sales by distributors to healthcare providers, using product-specific data provided by the distributors. Product return allowances were based on amounts owed or to be claimed on related sales. These estimates took into consideration the terms of the Company's agreements with customers, historical product returns, rebates or discounts taken, estimated levels of inventory in the distribution channel, the shelf life of the product and specific known market events, such as competitive pricing and new product introductions. The Company updated its estimates and assumptions each quarter and if actual future results varied from its estimates, the Company adjusted these estimates, which could have had an effect on product sales and earnings in the period of adjustment.

The following table summarizes activity in each of the product revenue allowance and reserve categories:

<b>(In thousands)</b>	<b>Chargebacks, Discounts and Fees</b>	<b>Government and Other Rebates</b>	<b>Returns</b>	<b>Total</b>
Balance at December 31, 2017	\$ 992	\$ 352	\$ 946	\$ 2,290
Provision related to current period sales	6,402	704	521	7,627
Adjustment related to prior period sales	(81)	168	(449)	(362)
Credit or payments made during the period	(6,938)	(932)	(157)	(8,027)
Balance at December 31, 2018	<u>\$ 375</u>	<u>\$ 292</u>	<u>\$ 861</u>	<u>\$ 1,528</u>
Provision related to current period sales	—	—	—	—
Adjustment related to prior period sales	116	121	(38)	199
Credit or payments made during the period	(264)	(202)	—	(466)
Balance at December 31, 2019	<u>\$ 227</u>	<u>\$ 211</u>	<u>\$ 823</u>	<u>\$ 1,261</u>

*Collaborative Arrangements under ASC 606 (Effective January 1, 2018)*

The Company enters into collaborative arrangements with partners that fall under the scope of ASC Topic 808, *Collaborative Arrangements* (“ASC 808”). While these arrangements are in the scope of ASC 808, the Company may analogize to ASC 606 for some aspects of the arrangements. The Company analogizes to ASC 606 for certain activities within the collaborative arrangement for the delivery of a good or service (i.e., a unit of account) that is part of its ongoing major or central operations. Revenue recognized by analogizing to ASC 606 is recorded as “collaboration revenue” or “licensing revenue” whereas, revenue recognized in accordance with ASC 808, is recorded on a separate collaboration revenue line on the consolidated statements of operations.

The terms of the Company’s collaborative arrangements typically include one or more of the following: (i) up-front fees; (ii) milestone payments related to the achievement of development, regulatory, or commercial goals; (iii) royalties on net sales of licensed products; (iv) reimbursements or cost-sharing of research and development expenses; and (v) profit/loss sharing arising from co-promotion arrangements. Each of these payments results in collaboration revenues or an offset against research and development expense. Where a portion of non-refundable up-front fees or other payments received is allocated to continuing performance obligations under the terms of a collaborative arrangement, they are recorded as deferred revenue and recognized as collaboration revenue when (or as) the underlying performance obligation is satisfied.

As part of the accounting for these arrangements, the Company must develop estimates and assumptions that require judgment to determine the underlying stand-alone selling price for each performance obligation which determines how the transaction price is allocated among the performance obligations. The estimation of the stand-alone selling price may include such estimates as, forecasted revenues or costs, development timelines, discount rates and probabilities of technical and regulatory success. The Company evaluates each performance obligation to determine if they can be satisfied at a point in time or over time, and it measures the services delivered to the collaborative partner which are periodically reviewed based on the progress of the related program. The effect of any change made to an estimated input component and, therefore revenue or expense recognized, would be recorded as a change in estimate. In addition, variable consideration (e.g., milestone payments) must be evaluated to determine if it is constrained and, therefore, excluded from the transaction price.

*Up-front Fees:* If a license to the Company’s intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes collaboration revenues from the transaction price allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing collaboration revenue from the allocated transaction price. For example, when the Company receives up-front fees for the performance of research and development services, or when research and development services are not considered to be distinct from a license, the Company recognizes collaboration revenue for those units of account over time using a measure of progress. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue or expense recognition as a change in estimate.

*Milestone Payments:* At the inception of each arrangement that includes milestone payments (variable consideration), the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the Company’s or the collaborative partner’s control, such as non-operational developmental and regulatory approvals, are generally not considered probable of being achieved until those approvals are received. At the end of each reporting period, the Company re-evaluates the probability of achievement of milestones that are within its or the collaborative partner’s control, such as operational developmental milestones and any related constraint, and if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect collaboration revenues and earnings in the period of adjustment. Revisions to the Company’s estimate of the transaction price may also result in negative collaboration revenues and earnings in the period of adjustment.

*Royalties:* For arrangements that include sales-based royalties, including commercial milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied).

Following the sale of VIBATIV to Cumberland in November 2018, VIBATIV royalties earned from Cumberland are included within “interest and other income, net” on the consolidated statements of operations. In addition, the Company’s income earned related to TRELEGY ELLIPTA sales is included within “income from our investment in TRC, LLC” on the consolidated statements of operations.

*Reimbursement, cost-sharing and profit-sharing payments:* Under certain collaborative arrangements, the Company has been reimbursed for a portion of its research and development expenses or participates in the cost-sharing of such research and development expenses. Such reimbursements and cost-sharing arrangements have been reflected as a reduction of research and development expense in the Company’s consolidated statements of operations, as the Company does not consider performing research and development services for reimbursement to be a part of its ongoing major or central operations.

*Collaborative Arrangements under ASC 605 (Effective Prior to January 1, 2018)*

Revenue from non-refundable, up-front license or technology access payments under license and collaborative arrangements that were not dependent on any future performance by the Company was recognized when such amounts were earned. If the Company had continuing obligations to perform under the arrangement, such fees were recognized over the estimated period of continuing performance obligation.

The Company accounted for multiple element arrangements, such as license and development agreements in which it may have provided several deliverables, in accordance with ASC, Subtopic 605-25, *Multiple Element Arrangements*. For new or materially amended multiple element arrangements, the Company identified the deliverables at the inception of the arrangement and each deliverable within a multiple deliverable revenue arrangement was accounted for as a separate unit of accounting if both of the following criteria were met: (1) the delivered item or items had value to the customer on a standalone basis; and (2) for an arrangement that included a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) was considered probable and substantially in the Company’s control. The Company allocated revenue to each non-contingent element based on the relative selling price of each element. When applying the relative selling price method, the Company determined the selling price for each deliverable using vendor-specific objective evidence (“VSOE”) of selling price, if it existed, or third-party evidence (“TPE”) of selling price, if it existed. If neither VSOE nor TPE of selling price existed for a deliverable, the Company used the best estimated selling price for that deliverable. Revenue allocated to each element was then recognized based on when the basic four revenue recognition criteria were met for each element.

Where a portion of non-refundable upfront fees or other payments received were allocated to continuing performance obligations under the terms of a collaborative arrangement, they were recorded as deferred revenue and recognized as revenue ratably over the term of the Company’s estimated performance period under the agreement. The Company determined the estimated performance periods, and they were periodically reviewed based on the progress of the related program. The effect of any change made to an estimated performance period and, therefore revenue recognized, would occur on a prospective basis in the period that the change was made.

Under certain collaborative arrangements, the Company was reimbursed for a portion of its research and development expenses. These reimbursements were reflected as a reduction of research and development expense in the Company’s consolidated statements of operations, as it did not consider performing research and development services to be a customer relationship in the context of those collaborative arrangements. Therefore, the reimbursement of research and development services were recorded as a reduction of research and development expense.

The Company recognized revenue from milestone payments when (i) the milestone event was substantive and its achievability was not reasonably assured at the inception of the agreement; and (ii) the Company did not have ongoing performance obligations related to the achievement of the milestone. Milestone payments were considered substantive if all of the following conditions were met: the milestone payment (a) was commensurate with either the

Company's performance to achieve the milestone or the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the Company's performance to achieve the milestone; (b) related solely to past performance; and (c) was reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement.

### **Research and Development Expenses**

Research and development ("R&D") expenses are recorded in the period that services are rendered or goods are received. R&D expenses consist of salaries and benefits, laboratory supplies and facility costs, as well as fees paid to third parties that conduct R&D activities on behalf of the Company, net of certain external R&D expenses reimbursed under the Company's collaborative arrangements.

As part of the process of preparing financial statements, the Company is required to estimate and accrue certain R&D expenses. This process involves the following:

- identifying services that have been performed on the Company's behalf and estimating the level of service performed and the associated cost incurred for the service when the Company has not yet been invoiced or otherwise notified of actual cost;
- estimating and accruing expenses in the Company's financial statements as of each balance sheet date based on facts and circumstances known to it at the time; and
- periodically confirming the accuracy of the Company's estimates with selected service providers and making adjustments, if necessary.

Examples of estimated research and development expenses that the Company accrues include:

- fees paid to clinical research organizations ("CROs") in connection with preclinical and toxicology studies and clinical studies;
- fees paid to investigative sites in connection with clinical studies;
- fees paid to contract manufacturing organizations ("CMOs") in connection with the production of product and clinical study materials; and
- professional service fees for consulting and related services.

The Company bases its expense accruals related to clinical studies on its estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and CROs that conduct and manage clinical studies on the Company's behalf. The financial terms of these agreements vary from contract to contract and may result in uneven payment flows. Payments under some of these contracts depend on factors, such as the successful enrollment of patients and the completion of clinical study milestones. The Company's service providers typically invoice it monthly in arrears for services performed. In accruing service fees, the Company estimates the time period over which services will be performed and the level of effort to be expended in each period. If the Company does not identify costs that it has begun to incur or if it underestimates or overestimates the level of services performed or the costs of these services, the Company's actual expenses could differ from its estimates.

To date, the Company has not experienced significant changes in its estimates of accrued research and development expenses after a reporting period. Such changes in estimates recorded after a reporting period have been less than 1% of the Company's annual R&D expenses and have not been material. However, due to the nature of estimates, there is no assurance that the Company will not make changes to its estimates in the future as it becomes aware of additional information about the status or conduct of its clinical studies and other research activities. Such

changes in estimates will be recognized as research and development expenses in the period that the change in estimate occurs.

#### ***Advertising Expenses***

The Company expenses the costs of advertising, including promotional expenses, as incurred. Advertising expenses were \$2.4 million, \$1.9 million and \$3.2 million for the years ended December 31, 2019, 2018 and 2017, respectively.

#### ***Fair Value of Share-Based Compensation Awards***

The Company uses the Black-Scholes-Merton option pricing model to estimate the fair value of options granted under its equity incentive plans and rights to acquire shares granted under its employee share purchase plan ("ESPP"). The Black-Scholes-Merton option valuation model requires the use of assumptions, including the expected term of the award and the expected share price volatility. The Company uses the "simplified" method as described in Staff Accounting Bulletin No. 107, *Share-Based Payment*, to estimate the expected option term.

Share-based compensation expense is calculated based on awards ultimately expected to vest and is reduced for actual forfeitures as they occur. Compensation expense for purchases under the ESPP is recognized based on the fair value of the award on the date of offering.

#### ***Amortization of Debt Issuance Costs***

Debt issuance costs are amortized to interest expense over the estimated life of the related debt based on the effective interest method.

#### ***Theravance Respiratory Company, LLC ("TRC")***

Through its equity ownership of TRC, the Company is entitled to receive an 85% economic interest in any future payments that may be made by Glaxo Group or one of its affiliates ("GSK") relating to the GSK-Partnered Respiratory Programs (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters). The GSK-Partnered Respiratory Programs consist primarily of the TRELEGY ELLIPTA program and the inhaled Bifunctional Muscarinic Antagonist-Beta2 Agonist ("MABA") program.

The Company analyzed its ownership, contractual and other interests in TRC to determine if TRC is a variable-interest entity ("VIE"), whether the Company has a variable interest in TRC and the nature and extent of that interest. The Company determined that TRC is a VIE. The party with the controlling financial interest, the primary beneficiary, is required to consolidate the entity determined to be a VIE. Therefore, the Company also assessed whether the Company is the primary beneficiary of TRC based on the power to direct its activities that most significantly impact its economic performance and the Company's obligation to absorb its losses or the right to receive benefits from it that could potentially be significant to TRC. Based on the Company's assessment, it determined that it is not the primary beneficiary of TRC, and, as a result, the Company does not consolidate TRC in its consolidated financial statements. TRC is recognized in the Company's consolidated financial statements under the equity method of accounting. Income related to the Company's equity ownership of TRC is reflected in its consolidated statements of operations as non-operating income.

#### ***Income Taxes***

The Company utilizes the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and tax basis of assets and liabilities and are measured using enacted tax rates and laws that are anticipated to be in effect when the differences are expected to reverse. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized.

The Company's total unrecognized tax benefits of \$58.8 million and \$52.4 million, as of December 31, 2019 and December 31, 2018, respectively, may reduce the effective tax rate in the period of recognition. The Company



currently has a full valuation allowance against its deferred tax assets, which would impact the timing of the effective tax rate benefit should any of these uncertain positions be favorably settled in the future.

The Company assesses all material positions, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position's sustainability and is measured at the largest amount of benefit that is greater than 50% likely to be realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and the Company will determine whether the factors underlying the sustainability assertion have changed and whether the amount of the recognized tax benefit is still appropriate.

The recognition and measurement of tax benefits requires significant judgment. The Company has taken certain positions where it believes that its position is greater than 50% likely to be realized upon ultimate settlement and for which no reserve for uncertain tax positions has been recorded. If the Company does not ultimately realize the expected benefit of these positions, it will record additional income tax expenses in future periods. Judgments concerning the recognition and measurement of a tax benefit might change as new information becomes available.

Any tax levied or credited by a governmental taxing authority that is not based on the Company's income is outside the scope of accounting for income taxes. Therefore, the Company records such items as a component in its loss before income taxes.

### **Net Loss per Share**

Basic net loss per share is computed by dividing net loss by the weighted-average number of shares outstanding, less ordinary shares subject to forfeiture. Diluted net loss per share is computed by dividing net loss by the weighted-average number of shares outstanding, less ordinary shares subject to forfeiture, plus all additional ordinary shares that would have been outstanding, assuming dilutive potential ordinary shares had been issued for other dilutive securities.

(In thousands)	Year Ended December 31,		
	2019	2018	2017
<b>Numerator:</b>			
Net loss	\$ (236,455)	\$ (215,524)	\$ (285,405)
<b>Denominator:</b>			
Weighted-average common shares outstanding	56,452	55,076	53,703
Less: weighted-average common shares subject to forfeiture	(842)	(1,107)	(1,351)
Weighted-average common shares used to compute basic and diluted net loss per share	55,610	53,969	52,352
Basic and diluted net loss per share	\$ (4.25)	\$ (3.99)	\$ (5.45)

For the years ended December 31, 2019, 2018 and 2017, diluted and basic net loss per share was identical since potential ordinary shares were excluded from the calculation, as their effect was anti-dilutive.

### **Anti-dilutive Securities**

The following ordinary equivalent shares were not included in the computation of diluted net loss per share because their effect was anti-dilutive:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Share issuances under equity incentive plans and ESPP	6,577	3,492	3,369
Restricted shares	—	2	6
Share issuances upon the conversion of convertible senior notes	6,676	6,676	6,676
Total	13,253	10,170	10,051

In addition, there were 414,000, 978,750 and 1,305,000 shares that are subject to performance-based vesting criteria which have been excluded from the ordinary equivalent shares table above for the years ended December 31, 2019, 2018 and 2017, respectively.

### **Comprehensive Loss**

Comprehensive loss is comprised of net loss and changes in unrealized gains and losses on the Company's available-for-sale investments.

### **Related Parties**

GSK owned 16.9% of the Company's ordinary shares outstanding as of December 31, 2019. On March 17, 2016, GSK purchased from the Company 1,301,015 of its ordinary shares for an aggregate purchase price of approximately \$23.0 million pursuant to a Share Purchase Agreement between GSK and the Company dated March 14, 2016. The Share Purchase Agreement was entered into pursuant to Section 2.1(d)(ii) of the Governance Agreement between GSK and the Company dated March 3, 2014 (the "Governance Agreement"), which until December 31, 2017 afforded GSK, on a quarterly basis, the opportunity to purchase from the Company ordinary shares sufficient to maintain GSK's Percentage Interest (as defined in the Governance Agreement) at the same level as prior to any exercise of share options and vesting of restricted shares that occurred during the prior quarter, and pursuant to the Company's approval to GSK to make additional purchases, which approval was required by Section 2.1(a) of the Governance Agreement. The Governance Agreement expired on December 31, 2017.

Robert V. Gunderson, Jr. is a member of the Company's board of directors. The Company has engaged Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP, of which Mr. Gunderson is a partner, as its primary legal counsel. Fees incurred were \$0.4 million, \$0.5 million and \$0.3 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Dr. Smaldone Alsup is a member of the Company's board of directors and is also the Chief Operating Officer and Chief Scientific Officer of NDA Group. The Company engaged NDA Group in 2017 to perform consulting services related to the regulatory plans for one of the Company's drug candidates. There were no fees incurred for services performed by NDA Group for the years ended December 31, 2019 and 2018, and there were \$0.1 million in fees incurred for the year ended December 31, 2017.

### **Recently Adopted Accounting Pronouncements**

Effective January 1, 2019, the Company adopted Accounting Standards Update ("ASU") 2016-02, *Leases (Topic 842)* ("ASU 2016-02"). ASU 2016-02 was aimed at making leasing activities more transparent and comparable, and requires leases with terms greater than one year to be recognized by lessees on their balance sheet as a right-of-use asset and corresponding lease liability.

The Company adopted the new standard using a modified retrospective transition method to initially account for the impact of the adoption with a cumulative adjustment to accumulated deficit, if any, on the effective date of ASU 2016-02 of January 1, 2019, rather than applying the transition provisions in the earliest period presented. The Company elected a package of practical expedients that allowed entities to not: (i) reassess whether any expired or existing contracts are considered or contain leases; (ii) reassess the lease classification for any expired or existing leases; and (iii) reassess initial direct costs for any existing leases. In addition, the Company elected other practical expedients that allowed entities to: (i) use hindsight in determining the term of a lease when the lease includes an option to extend the lease term; (ii) exclude all leases, on a go forward basis, that have a lease term of 12-months or less; and (iii) combine lease and non-lease components (e.g., office common area maintenance expenses) when recognizing a lease on an entity's balance sheet on a go forward basis.

As a result of the adoption of ASU 2016-02, on January 1, 2019, the Company recorded a right-of-use operating lease asset of \$48.3 million and an operating lease liability of \$56.3 million related to its office leases in South San Francisco, California and Dublin, Ireland. The lease liability included \$8.0 million related to deferred rent liabilities. The adoption of ASU 2016-02 did not have an impact on the Company's consolidated results of operations, lease expense, or cash flows.

Effective January 1, 2019, the Company adopted ASU 2017-09, *Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting* (“ASU 2017-09”). ASU 2017-09 was issued to provide clarity and reduce both (i) diversity in practice; and (ii) cost and complexity when applying the guidance in *Topic 718, Compensation—Stock Compensation*, to a change to the terms or conditions of a share-based payment award. The amendments in ASU 2017-09 provided guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in *Topic 718*. Essentially, an entity will not have to account for the effects of a modification if: (i) the fair value of the modified award is the same immediately before and after the modification; (ii) the vesting conditions of the modified award are the same immediately before and after the modification; and (iii) the classification of the modified award as either an equity instrument or liability instrument is the same immediately before and after the modification. The adoption of ASU 2017-09 did not have a material impact on the Company’s consolidated financial statements and related disclosures as of January 1, 2019.

#### **Recently Issued Accounting Pronouncements Not Yet Adopted**

In June 2016, the Financial Accounting Standards Board (“FASB”) issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (“ASU 2016-13”). This guidance requires that financial assets measured at amortized cost be presented at the net amount expected to be collected. The measurement of expected credit losses is based on historical experience, current conditions, and reasonable and supportable forecasts that affect collectability. ASU 2016-13 also eliminates the concept of “other-than-temporary” impairment when evaluating available-for-sale debt securities and instead focuses on determining whether any impairment is a result of a credit loss or other factors. An entity will recognize an allowance for credit losses on available-for-sale debt securities rather than an other-than-temporary impairment that reduces the cost basis of the investment. ASU 2016-13 is effective for annual reporting periods and interim periods within those years beginning after December 15, 2019. The Company has evaluated ASU 2016-13 and determined that ASU 2016-13 is not expected to have a material impact on its consolidated financial statements and related disclosures based on the historically high credit quality and short-term maturities of the Company’s marketable securities.

In August 2018, the FASB issued ASU 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* (“ASU 2018-15”). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. Accordingly, ASU 2018-15 requires a customer in a hosting arrangement that is a service contract to follow the guidance in Subtopic 350-40 to determine which implementation costs to capitalize as an asset related to the service contract and which costs to expense. ASU 2018-15 is effective for annual reporting periods and interim periods within those years beginning after December 15, 2019. The Company has evaluated ASU 2018-15 and determined that ASU 2018-15 is not expected to have a material impact on its consolidated financial statements and related disclosures. However, the adoption of ASU 2018-15 may result in an increase in capitalized assets related to qualifying cloud computing arrangement implementation costs incurred after the adoption date.

In November 2018, the FASB issued ASU 2018-18, *Collaboration Arrangements: Clarifying the Interaction between Topic 808 and Topic 606* (“ASU 2018-18”). The issuance of *Topic 606* raised questions about the interaction between the guidance on collaborative arrangements and revenue recognition. ASU 2018-18 addresses this uncertainty by: (i) clarifying that certain transactions between collaborative arrangement participants should be accounted for as revenue under ASC 606 when the collaboration arrangement participant is a customer; (ii) adding unit of account guidance to assess whether the collaboration arrangement or a part of the arrangement is with a customer; and (iii) precluding a company from presenting transactions with collaboration arrangement participants that are not directly related to sales to third parties together with revenue from contracts with customers. ASU 2018-18 is effective for annual reporting periods and interim periods within those years beginning after December 15, 2019. The Company has evaluated ASU 2018-18 and determined that ASU 2018-18 is not expected to have a material impact on the Company’s consolidated financial statements and related disclosures.

On December 18, 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* (“ASU 2019-12”) as part of its overall simplification initiative to reduce costs and complexity of applying accounting standards. ASU 2019-12 removes certain exceptions from ASC 740, *Income Taxes*, including (i) the exception to the incremental approach for intra period tax allocation when there is a loss from continuing operations and income or a gain from other items such as discontinued operations or other comprehensive income; (ii) the exception to accounting for outside basis differences of equity method investments and foreign subsidiaries; and (iii) the exception to limit tax benefit recognized in interim periods in cases when the year-to-date losses exceed anticipated losses. ASU 2019-12 also simplifies GAAP in several other areas of ASC 740 such as (i) franchise taxes and other taxes partially based on income; (ii) step-up in tax basis goodwill considered part of a business combination in which the book goodwill was originally recognized or should be considered a separate transaction; (iii) separate financial statements of entities not subject to tax; and (iv) interim recognition of enactment of tax laws or rate changes. ASU 2019-12 is effective for annual reporting periods and interim periods within those years beginning after December 15, 2020, and early adoption is permitted. The Company is currently evaluating the impact of adopting ASU 2019-12 on its consolidated financial statements and related disclosures.

The Company has evaluated other recently issued accounting pronouncements and does not currently believe that any of these pronouncements will have a material impact on its consolidated financial statements and related disclosures.

## 2. Revenue

### *Revenues from Collaborative Arrangements*

The Company recognized revenues from its collaborative arrangements as follows:

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>
Janssen	\$ 31,096	\$ 31,053	\$ —
Alfasigma	125	10,678	—
Other	29	60	598
Total collaboration revenue	<u>\$ 31,250</u>	<u>\$ 41,791</u>	<u>\$ 598</u>

As noted earlier, the Company adopted ASC 606 on January 1, 2018. Had ASC 605 been in effect, the 2018 collaboration revenue in the above table would not have been materially different.

### *Changes in Deferred Revenue Balances*

Changes in deferred revenue balances arose as a result of the Company recognizing the following revenue from collaborative arrangements during the periods below:

<b>(In thousands)</b>	<b>Year Ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
<b>Collaboration revenue recognized in the period from:</b>		
Amounts included in deferred revenue at the beginning of the period	\$ 31,245	\$ 130
Performance obligations satisfied in previous period	—	—

### *Janssen Biotech*

In February 2018, the Company entered into a global co-development and commercialization agreement with Janssen Biotech, Inc. (“Janssen”) for TD-1473 and related back-up compounds for inflammatory intestinal diseases, including ulcerative colitis and Crohn’s disease (the “Janssen Agreement”). Under the terms of the Janssen Agreement, the Company received an upfront payment of \$100.0 million. The Company is conducting a Phase 2 (DIONE) study of TD-1473 in Crohn’s disease and a Phase 2b/3 (RHEA) induction and maintenance study of TD-1473 in ulcerative colitis. Following the initial Phase 2 development period, including the completion of the Phase 2 Crohn’s study and the Phase 2b induction portion of the ulcerative colitis study, Janssen can elect to obtain an exclusive license to develop and commercialize TD-1473 and certain related back-up compounds by paying the Company a fee of \$200.0 million. Upon any such election, the Company and Janssen will jointly develop and commercialize TD-1473 in inflammatory intestinal

diseases and share profits in the US and expenses related to Phase 3 development and registration activities (67% to Janssen; 33% to Theravance Biopharma). The Company would receive royalties on ex-US sales at double-digit tiered percentage royalty rates, and the Company would be eligible to receive up to an additional \$700.0 million in development and commercialization milestone payments from Janssen.

The Janssen Agreement is considered to be within the scope of ASC 808 as the parties are active participants and exposed to the risks and rewards of the collaborative activity. The Company evaluated the terms of the Janssen Agreement and have analogized to ASC 606 for the research and development activities to be performed through the initial Phase 2 development period of the collaborative arrangement that are considered to be part of the Company's ongoing major or central operations. Using the concepts of ASC 606, the Company has identified research and development activities as its only performance obligation. The Company further determined that the transaction price under the arrangement was the \$100.0 million upfront payment which was allocated to the single performance obligation.

The \$900.0 million in future potential payments, inclusive of the \$200.0 million opt-in fee and \$700.0 million future development and commercialization milestones, is considered variable consideration if Janssen elects to remain in the collaboration arrangement following completion of the initial Phase 2 development period, as described above and, as such, was not included in the transaction price, as the potential payments were all determined to be fully constrained under ASC 606. As part of the Company's evaluation of this variable consideration constraint, it determined that the potential payments are contingent upon developmental and regulatory milestones that are uncertain and are highly susceptible to factors outside of its control. The Company expects that any consideration related to royalties and sales-based milestones will be recognized when the subsequent sales occur.

For each of the years ended December 31, 2019 and 2018, the Company recognized approximately \$31.1 million as revenue from collaboration arrangements related to the Janssen Agreement. The remaining transaction price of \$37.9 million was recorded in deferred revenue on the consolidated balance sheets and is expected to be recognized as collaboration revenue as the research and development services are delivered over the Phase 2 development period. Collaboration revenue is recognized for the research and development services based on a measure of the Company's efforts toward satisfying the performance obligation relative to the total expected efforts or inputs to satisfy the performance obligation (e.g., costs incurred compared to total budget). For the years ended December 31, 2019 and 2018, the Company incurred \$39.9 million and \$38.6 million, respectively, in research and development costs related to the Janssen Agreement. In future reporting periods, the Company will reevaluate the estimates related to its efforts towards satisfying the performance obligation and may record a change in estimate if deemed necessary.

### ***Mylan***

In January 2015, the Company and Mylan Ireland Limited ("Mylan") established a strategic collaboration (the "Mylan Agreement") for the development and commercialization of revefenacin, including YUPELRI® (revefenacin) inhalation solution. The Company entered into the collaboration to expand the breadth of its revefenacin development program and extend its commercial reach beyond the hospital setting.

Under the Mylan Agreement, Mylan paid the Company an upfront fee of \$15.0 million for the delivery of the revefenacin license in 2015 and, in 2016, Mylan paid the Company a milestone payment of \$15.0 million for the achievement of 50% enrollment in the related Phase 3 twelve-month safety study. Separately, pursuant to an agreement to purchase ordinary shares entered into on January 30, 2015, Mylan Inc., a subsidiary of Mylan N.V., made a \$30.0 million equity investment in the Company, buying 1,585,790 ordinary shares from the Company in February 2015 in a private placement transaction at a price of approximately \$18.918 per share, which represented a 10% premium, equal to \$4.2 million, over the volume weighted-average price per share of the Company's ordinary shares for the five trading days ending on January 30, 2015. These shares were subsequently sold by Mylan in 2018.

Under the Mylan Agreement, as of December 31, 2019, the Company is eligible to receive from Mylan potential global (ex-China and adjacent territories) development, regulatory and sales milestone payments totaling up to \$205.0 million in the aggregate, with \$160.0 million associated with YUPELRI monotherapy, and \$45.0 million associated with future potential combination products. Of the \$160.0 million associated with monotherapy, \$150.0 million relates to sales milestones based on achieving certain levels of net sales and \$10.0 million relates to

regulatory actions in the European Union (“EU”). The \$45.0 million associated with future potential combination products relates solely to development and regulatory actions.

The Mylan Agreement is considered to be within the scope of ASC 808, as the parties are active participants and exposed to the risks and rewards of the collaborative activity. Under the terms of the Mylan Agreement, Mylan was responsible for reimbursement of the Company’s costs related to the registrational program up until the approval of the first new drug application in November 2018, thereafter, R&D expenses are shared. Performing R&D services for reimbursement is considered to be a collaborative activity under the scope of ASC 808. Reimbursable program costs are recognized proportionately with the performance of the underlying services and accounted for as reductions to R&D expense. For this unit of account, the Company did not recognize revenue or analogize to ASC 606 and, as such, the reimbursable program costs are excluded from the transaction price.

The Company analogized to ASC 606 for the accounting for two performance obligations: (1) delivery of the license to develop and commercialize revedfenacin; and (2) joint steering committee participation. The Company determined the license to be distinct from the joint steering committee participation. The Company further determined that the transaction price under the arrangement was comprised of the following: (1) \$15.0 million upfront license fee received in 2015; (2) \$4.2 million premium related to the ordinary share purchase agreement received in 2015; and (3) \$15.0 million milestone for 50% enrollment in the Phase 3 twelve-month safety study received in 2016. The total transaction price of \$34.2 million was allocated to the two performance obligations based on the Company’s best estimate of the relative stand-alone selling price. For the delivery of the license, the Company based the stand-alone selling price on a discounted cash flow approach and considered several factors including, but not limited to: discount rate, development timeline, regulatory risks, estimated market demand and future revenue potential. For the committee participation, the Company based the stand-alone selling price on the average compensation of its committee members estimated to be incurred over the performance period. The Company expects to recognize collaboration revenue from the committee participation ratably over the performance period of approximately seventeen years.

The future potential milestone amounts for the Mylan Agreement were not included in the transaction price, as they were all determined to be fully constrained following the concepts of ASC 606. As part of the Company’s evaluation of the development and regulatory milestones constraint, the Company determined that the achievement of such milestones are contingent upon success in future clinical trials and regulatory approvals which are not within its control and uncertain at this stage. The Company expects that the sales-based milestone payments and royalty arrangements will be recognized when the sales occur or the milestone is achieved. The Company will re-evaluate the transaction price each quarter and as uncertain events are resolved or other changes in circumstances occur.

As of December 31, 2019, \$0.3 million was recorded in deferred revenue on the consolidated balance sheets under the Mylan Agreement. This amount reflects revenue allocated to joint steering committee participation which will be recognized as collaboration revenue over the course of the remaining performance period of approximately twelve years.

The Company is also entitled to a share of US profits and losses (65% to Mylan; 35% to Theravance Biopharma) received in connection with commercialization of YUPELRI, and the Company is entitled to low double-digit tiered royalties on ex-US net sales. Mylan is the principal in the sales transactions, and as a result, the Company does not reflect the product sales in its financial statements.

Following the US Food and Drug Administration (“FDA”) approval of YUPELRI in November 2018, net amounts payable to or receivable from Mylan each quarter under the profit-sharing structure are disaggregated according to their individual components. Any reimbursement from Mylan attributed to the 65% cost-sharing of the Company’s R&D expenses is characterized as a reduction of R&D expense, as the Company does not consider performing research and development services for reimbursement to be a part of its ongoing major or central operations. In accordance with the applicable accounting guidance, amounts receivable from Mylan in connection with the commercialization of YUPELRI are recorded within the consolidated statements of operations as revenue from “Mylan collaboration agreement” irrespective of whether the overall collaboration is profitable. Amounts payable to Mylan in connection with the commercialization of YUPELRI are recorded within the consolidated statements of operations as a collaboration loss within selling, general and administrative expenses.

The following YUPLERI-related amounts were recognized in the Company's consolidated statements of operations:

(In thousands)	Year Ended December 31,	
	2019	2018
Mylan collaboration agreement - Amounts receivable from Mylan	\$ 13,664	\$ 3,275
Collaboration loss - Amounts payable to Mylan	\$ 1,582	\$ 2,997

Prior to the FDA approval of YUPELRI in late 2018, the Company recognized its 35% share of expenses within R&D expense and selling, general and administrative expense on its consolidated statements of operations.

### **Alfasigma**

Under an October 2012 development and collaboration agreement for velusetrag, the Company and Alfasigma S.p.A ("Alfasigma") agreed to collaborate in the execution of a two-part Phase 2 program to test the efficacy, safety and tolerability of velusetrag in the treatment of patients with gastroparesis (a medical condition consisting of a paresis (partial paralysis) of the stomach, resulting in food remaining in the stomach for a longer time than normal) (the "Alfasigma Agreement"). As part of the Alfasigma Agreement, Alfasigma funded the majority of the costs associated with the Phase 2 gastroparesis program, which consisted of a Phase 2 study focused on gastric emptying and a Phase 2 study focused on symptoms. Alfasigma had an exclusive option to develop and commercialize velusetrag in the EU, Russia, China, Mexico and certain other countries, while the Company retained full rights to velusetrag in the US, Canada, Japan and certain other countries.

In April 2018, Alfasigma exercised its exclusive option to develop and commercialize velusetrag, and the Company elected not to pursue further development of velusetrag. As a result, the Company is transferring global rights for velusetrag to Alfasigma under the terms of the existing collaboration agreement. The Company received a \$10.0 million option exercise fee and a \$1.0 million non-refundable reimbursement from Alfasigma, and the Company is eligible to receive future potential development, regulatory and sales milestone payments of up to \$26.8 million and tiered royalties on global net sales ranging from high single digits to the mid-teens.

The Alfasigma Agreement is considered to be within the scope of ASC 808, as the parties are active participants and exposed to the risks and rewards of the collaborative activity. The Company has historically received reimbursements related to R&D services performed under the Alfasigma Agreement. Performing R&D services for reimbursement is considered to be a collaborative activity under the scope of ASC 808. Reimbursable program costs are accounted for as reductions to R&D expense. For this unit of account, the Company does not recognize revenue or analogize to ASC 606 and, as such, the reimbursable program costs are excluded from the transaction price.

As a result of Alfasigma's election to exercise its exclusive option to develop and commercialize velusetrag in April 2018, Alfasigma paid the Company a total of \$11.0 million, comprised of the \$10.0 million option exercise fee and the \$1.0 million non-refundable reimbursement. The Company analogized to ASC 606 for the delivery of the following identified performance obligations: (i) delivery of the velusetrag license; (ii) transfer of technical know-how; (iii) delivery of clinical study reports ("CSRs"); (iv) delivery of registration batches, including drug substances; and (v) joint steering committee participation. The Company determined that all of the five performance obligations were distinct, and it allocated the transaction price based on the estimated stand-alone selling prices of each of the performance obligations. The stand-alone selling price of the license was based on a discounted cash flow approach and considered several factors including, but not limited to: discount rate, development timeline, regulatory risks, estimated market demand and future revenue potential.

The Company determined that any potential development or regulatory milestones were to be fully constrained as prescribed under ASC 606. As part of its evaluation of this variable consideration constraint, the Company determined that the potential payments are contingent upon developmental and regulatory milestones that are uncertain and are highly susceptible to factors outside of the Company's control. In addition, the Company expects that any consideration related to sales-based milestones would be recognized when the subsequent sales occur.

For the year ended December 31, 2019 and 2018, the Company recognized \$0.1 million and \$10.7 million, respectively, as revenue from collaboration arrangements related to the Alfasigma Agreement. As of December 31, 2019, \$0.2 million was recorded in deferred revenue on the consolidated balance sheets and is expected to be recognized as collaboration revenue over approximately the next seven years.

### **Reimbursement of R&D Expenses**

As noted above, under certain collaborative arrangements the Company is entitled to reimbursement of certain R&D expenses. Activities under collaborative arrangements for which the Company is entitled to reimbursement are considered to be collaborative activities under the scope of ASC 808. For these units of account, the Company does not analogize to ASC 606 or recognize revenue. The Company records reimbursement payments received from its collaboration partners as reductions to R&D expense.

The following table summarizes the reductions to R&D expenses related to reimbursement payments:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Janssen	\$ 5,129	\$ 1,597	\$ —
Mylan	460	7,515	23,427
Other	—	—	113
Total reduction to R&D expense	<u>\$ 5,589</u>	<u>\$ 9,112</u>	<u>\$ 23,540</u>

### **Revenue from Licensing Arrangements**

#### **Mylan**

In June 2019, the Company announced the expansion of the Mylan Agreement (the “Mylan Amendment”) to grant Mylan exclusive development and commercialization rights to nebulized revefenacin in China and adjacent territories. In exchange, the Company received an upfront payment of \$18.5 million (before a required tax withholding) and will be eligible to receive potential development and sales milestones totaling \$54.0 million and low double-digit tiered royalties on net sales of nebulized revefenacin, if approved. Of the \$54.0 million in potential milestones, \$9.0 million is associated with the development of YUPELRI monotherapy, \$7.5 million associated with the development of future potential combination products, and \$37.5 million is associated with sales milestones. Mylan will be responsible for all aspects of development and commercialization in the partnered regions, including pre- and post-launch activities and product registration and all associated costs.

The Mylan Amendment is accounted for under ASC 606 as a separate contract from the original Mylan Agreement that was entered into in January 2015. The Company identified a single performance obligation comprising of the delivery of the license to develop and commercialize revefenacin in China and adjacent territories. The transaction price was determined to be the upfront payment of \$18.5 million which the Company recognized as licensing revenue following the completion of the performance obligation in June 2019.

The future potential milestone amounts for the Mylan Amendment were not included in the transaction price, as they were all determined to be fully constrained following the concepts of ASC 606. As part of the Company’s evaluation of the development milestones constraint, the Company determined that the achievement of such milestones is contingent upon success in future clinical trials and regulatory approvals which are not within its control and uncertain at this stage. The Company expects that the sales-based milestone payments and royalty arrangements will be recognized when the sales occur or the milestone is achieved. The Company will re-evaluate the transaction price each quarter and as uncertain events are resolved or other changes in circumstances occur.

#### **Pfizer**

In December 2019, the Company entered into a global license agreement with Pfizer Inc. for its preclinical skin-selective, locally-acting pan-JAK inhibitor program (the “Pfizer Agreement”). The compounds in this program are designed to target validated pro-inflammatory pathways and are specifically designed to possess skin-selective activity with minimal systemic exposure.



Under the Pfizer Agreement, Pfizer has an exclusive license to develop, manufacture and commercialize certain compounds for all uses other than gastrointestinal, ophthalmic and respiratory applications. Under the terms of the Pfizer Agreement, the Company will receive an upfront cash payment of \$10.0 million and is eligible to receive up to an additional \$240.0 million in development and sales milestone payments from Pfizer. In addition, the Company will be eligible to receive a tiered royalty on worldwide net sales of any potential products under the license at percentage royalty rates ranging from middle single-digits to low double-digits.

The Pfizer Agreement is accounted for under ASC 606. The Company identified two performance obligations primarily comprised of the delivery of the license and samples of tangible materials which was completed in December 2019. The transaction price was determined to be the upfront payment of \$10.0 million which the Company recognized as licensing revenue for the year ended December 31, 2019.

The future potential milestones payable under the Pfizer Amendment were not included in the transaction price, as they were all determined to be fully constrained following the concepts of ASC 606. As part of the Company's evaluation of the development milestones constraint, the Company determined that the achievement of such milestones is contingent upon success in future clinical trials and regulatory approvals which are not within its control and uncertain at this stage. The Company expects that the sales-based milestone payments will be recognized when the sales occur or the milestone is achieved. The Company will re-evaluate the transaction price each quarter and as uncertain events are resolved or other changes in circumstances occur.

### **3. Sale of VIBATIV**

On November 12, 2018, the Company completed the sale of its assets related to the manufacture, marketing and sale of VIBATIV to Cumberland pursuant to the Asset Purchase Agreement dated November 1, 2018 (the "APA"). Under the APA, Cumberland paid the Company \$20.0 million at the closing of the transaction and \$5.0 million in April 2019. In addition, Cumberland will pay the Company tiered royalties of up to 20% of US net sales of VIBATIV until such time as royalties cumulatively total \$100.0 million.

In connection with the closing of the transaction, Cumberland acquired, among other things, (i) intellectual property rights relating to VIBATIV; (ii) active pharmaceutical ingredient for VIBATIV, work-in-process and finished drug product; (iii) the US marketing authorization for VIBATIV; (iv) certain assigned contracts relating to the manufacture and commercialization of VIBATIV; and (v) books and records related to VIBATIV. Cumberland also assumed certain clinical study obligations related to VIBATIV and certain post-closing liabilities and obligations as described in the APA.

The Company retained financial responsibility for any liabilities relating to products sold prior to the closing of the transaction, and Cumberland assumed financial responsibility for any liabilities relating to products sold on or after the closing of the transaction. The Company has agreed to provide transition services to Cumberland for limited periods of time following the closing of the transaction. The Company has also agreed for a limited period not to engage in specified activities that would compete with the manufacture, marketing and sale of VIBATIV.

The Company recognized a net gain of approximately \$6.1 million upon the sale of VIBATIV within "interest and other income, net" on the consolidated statements of operations for the year ended December 31, 2018. The Company will record the royalties receivable from future US net sales by Cumberland within other income. Transition-related costs of approximately \$1.1 million were recognized concurrently and included as a reduction to the net gain on the sale.

#### 4. Segment Information

The Company operates in a single segment, which is the discovery (research), development and commercialization of human therapeutics. The following table summarizes total revenue by geographic region:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
US	\$ 54,760	\$ 49,239	\$ 14,272
Europe	18,654	11,117	1,109
Asia	—	14	5
Total revenue	<u>\$ 73,414</u>	<u>\$ 60,370</u>	<u>\$ 15,386</u>

The following table summarizes total revenue from each of the Company's customers or collaboration partners who individually accounted for 10% or more of the Company's total revenue (as a percentage of total revenues) during the most recent three years:

(% of total revenue)	Year Ended December 31,		
	2019	2018	2017
Mylan	44 %	—	—
Janssen	42 %	51 %	—
Pfizer	14 %	—	—
Alfasigma	—	18 %	—
Cardinal Health	—	—	28 %
AmerisourceBergen	—	—	25 %
McKesson	—	—	23 %
Besse Medical	—	—	13 %

#### 5. Cash, Cash Equivalents, and Restricted Cash

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the consolidated balance sheets that sum to the total of the same such amount shown on the consolidated statements of cash flows.

(In thousands)	December 31,		
	2019	2018	2017
Cash and cash equivalents	\$ 58,064	\$ 378,021	\$ 88,980
Restricted cash	833	833	833
Total cash, cash equivalents, and restricted cash shown on the consolidated statements of cash flows	<u>\$ 58,897</u>	<u>\$ 378,854</u>	<u>\$ 89,813</u>

The Company maintains restricted cash to secure a line of credit and debt servicing of its 9.0% non-recourse notes, due on or before 2033. See "Note 7. Long-Term Debt" for further information regarding the Company's 9.0% non-recourse notes, due on or before 2033.

#### 6. Investments and Fair Value Measurements

##### Available-for-Sale Securities

The estimated fair value of marketable securities is based on quoted market prices for these or similar investments obtained from a commercial pricing service. The fair market value of marketable securities classified within Level 1 is based on quoted prices for identical instruments in active markets. The fair value of marketable securities classified within Level 2 is based on quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; or model-driven valuations whose inputs are observable or whose significant value drivers are observable. Observable inputs may include benchmark yields, reported trades, broker/dealer

quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers and reference data including market research publications.

Available-for-sale securities are summarized below:

		December 31, 2019			
(In thousands)		Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
US government securities	Level 1	\$ 100,746	\$ 108	\$ —	\$ 100,854
US government agency securities	Level 2	—	—	—	—
Corporate notes	Level 2	25,466	9	(1)	25,474
Commercial paper	Level 2	112,066	31	(2)	112,095
Marketable securities		238,278	148	(3)	238,423
Money market funds	Level 1	35,736	—	—	35,736
<b>Total</b>		<b>\$ 274,014</b>	<b>\$ 148</b>	<b>\$ (3)</b>	<b>\$ 274,159</b>

		December 31, 2018			
(In thousands)		Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
US government securities	Level 1	\$ 48,807	\$ —	\$ (86)	\$ 48,721
US government agency securities	Level 2	9,852	2	—	9,854
Corporate notes	Level 2	57,508	6	(88)	57,426
Commercial paper	Level 2	90,919	—	—	90,919
Marketable securities		207,086	8	(174)	206,920
Money market funds	Level 1	294,751	—	—	294,751
<b>Total</b>		<b>\$ 501,837</b>	<b>\$ 8</b>	<b>\$ (174)</b>	<b>\$ 501,671</b>

As of December 31, 2019, all of the available-for-sale securities had contractual maturities within sixteen months and the weighted average maturity of marketable securities was approximately three months. There were no transfers between Level 1 and Level 2 during the periods presented, and there have been no material changes to the Company's valuation techniques during the years ended December 31, 2019 and 2018.

In general, the Company invests in debt securities with the intent to hold such securities until maturity at par value. The Company does not intend to sell the investments that are currently in an unrealized loss position, and it is unlikely that it will be required to sell the investments before recovery of their amortized cost basis, which may be maturity. The Company has determined that the gross unrealized losses on its marketable securities, as of December 31, 2019, were temporary in nature, and there were no material unrealized losses on investments which have been in a loss position for more than twelve months as of December 31, 2019.

As of December 31, 2019, the Company's accumulated other comprehensive income (loss) on its consolidated balance sheets consisted of net unrealized gains or losses on available-for-sale investments. During the years ended December 31, 2019 and 2018, the Company did not sell any of its marketable securities.

***Non-Marketable Equity Securities and Other-Than-Temporary Impairment***

In September 2015, the Company and Trek Therapeutics, PBC ("TREKtx") entered into a licensing agreement (the "TREKtx Agreement") granting TREKtx an exclusive worldwide license for the development, manufacturing, use, marketing and sale of the Company's NS5A inhibitor known as TD-6450 as a component in combination hepatitis C virus ("HCV") products (the "HCV Products"). Pursuant to the TREKtx Agreement, the Company received an upfront payment of \$8.0 million in the form of TREKtx's Series A preferred stock and would be eligible to receive future royalties based on net sales of the HCV Products. TREKtx is solely responsible for all future costs associated with the supply, manufacture, development, sale and marketing of the licensed compound.

At the date of the acquisition of the investment, the Company estimated the fair value of the consideration received to be \$8.0 million based upon the price of similar Series A preferred stock that TREKtx sold to an independent third-party for cash consideration. The Company accounted for this investment using the cost-method of accounting and recorded it in other investments on the Company's consolidated balance sheets. The Company is not considered to be the primary beneficiary of TREKtx and therefore, does not consolidate the financial results of the company into its financial statements. The Company's equity investments are reviewed at least annually for impairment or whenever events or changes in circumstances indicate that the carrying value of the investment might not be recoverable.

During 2017, the Company identified indicators of impairment were present for its investment in TREKtx. The Company concluded that the impairment of this investment was other-than-temporary due to TREKtx's challenges in securing additional funding and, as a result, the Company recorded an impairment charge. Due to the uncertainty in the recovery of the investment, the Company recorded an impairment charge for the full carrying value of the investment. The \$8.0 million other-than-temporary impairment charge was reported as "Other-than-temporary impairment loss" on the consolidated statements of operations for the year ended December 31, 2017. As the inputs utilized for the assessment were not based on observable market data, the determination of fair value of this cost-method investment was classified within Level 3 of the fair value hierarchy. To determine the fair value of this investment, the Company used all available financial information related to the investee, including liquidity, rate of cash use, and ability to secure additional funding.

## 7. Long-Term Debt

Long-term debt consisted of the following liability components:

(In thousands)	December 31,	
	2019	2018
3.25% Convertible notes due 2023		
Principal amount	\$ 230,000	\$ 230,000
Unamortized debt issuance costs	(4,110)	(5,182)
9.0% Non-recourse notes due 2033		
Principal amount, net of 5% retained by the Company	235,347	237,500
Unamortized debt issuance costs	(6,196)	(7,965)
Total long-term debt	<u>\$ 455,041</u>	<u>\$ 454,353</u>

Long-term debt interest expense consists of the following components:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Stated coupon interest	\$ 28,811	\$ 9,316	\$ 7,475
Amortization of debt issuance costs	3,051	1,166	1,072
Total long-term debt interest expense	<u>\$ 31,862</u>	<u>\$ 10,482</u>	<u>\$ 8,547</u>

### 9.0% Non-Recourse Notes Due 2033

In November 2018, the Company entered into note purchase agreements relating to the private placement of \$250.0 million aggregate principal amount of 9.0% non-recourse notes, due on or before 2033 (the "Non-Recourse 2033 Notes") issued by the Company's wholly-owned subsidiary, Triple Royalty Sub LLC (the "Issuer").

The Non-Recourse 2033 Notes are secured by all of the Issuer's rights, title and interest as a holder of certain membership interests (the "Issuer Class C Units") in Theravance Respiratory Company, LLC ("TRC"). The primary source of funds to make payments on the Non-Recourse 2033 Notes will be the 63.75% economic interest of the Issuer (evidenced by the Issuer Class C Units) in any future payments made by the GSK under the collaboration agreement, dated as of November 14, 2002, by and between Innoviva, Inc. ("Innoviva") and GSK, as amended from time to time (net of the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement ("TRC LLC Agreement") over the next four fiscal quarters) relating to the TRELEGY ELLIPTA program. The sole source of principal and interest payments for the Non-Recourse 2033 Notes are the future royalty payments generated from the

TRELEGY ELLIPTA program, and as a result, the holders of the Non-Recourse 2033 Notes have no recourse against the Company even if the TRELEGY ELLIPTA payments are insufficient to cover the principal and interest payments for the Non-Recourse 2033 Notes.

The Non-Recourse 2033 Notes are not convertible into Company equity and have no security interest in nor rights under any agreement with GSK. The Non-Recourse 2033 Notes may be redeemed at any time prior to maturity, in whole or in part, at specified redemption premiums. The Non-Recourse 2033 Notes bear an annual interest rate of 9.0%, with interest and principal paid quarterly beginning April 15, 2019. Prior to October 15, 2020, in the event that the distributions received by the Issuer from TRC in a quarter are less than the interest accrued for the quarter, the principal amount of the Non-Recourse 2033 Notes will increase by the interest shortfall amount for that period without a default or event of default occurring. The terms of the Notes also provide that the Company, at its option, may satisfy the quarterly interest payment obligations by making a capital contribution to the Issuer, but not for more than four (4) consecutive quarterly interest payment dates or for more than six (6) quarterly interest payment dates during the term of the Notes. Since the principal and interest payments on the Non-Recourse 2033 Notes are ultimately based on royalties from TRELEGY ELLIPTA product sales, which will vary from quarter to quarter, the Non-Recourse 2033 Notes may be repaid prior to the final maturity date in 2033. The portion of the Non-Recourse 2033 Notes classified as a current liability is based on the amount of royalties received, or receivable, as of December 31, 2019, that are expected to be used to make a principal repayment on the Non-Recourse 2033 Notes within the next 12 months. Please refer to "Note 9. Theravance Respiratory Company, LLC" for information regarding the results of the arbitration against Innoviva and TRC that the Company initiated in May 2019.

In order to comply with Regulation RR – Credit Risk Retention (17 C.F.R. Part 246), 5.0% of the principal amount of the Non-Recourse 2033 Notes were retained by Theravance Biopharma R&D, Inc. and eliminated in the Company's consolidated financial statements.

As of December 31, 2019, the remaining net principal of the Non-Recourse 2033 Notes was \$235.3 million. The estimated fair value of the Non-Recourse 2033 Notes was \$228.3 million and \$237.5 million as of December 31, 2019 and 2018, respectively. The inputs to determine fair value of the Non-Recourse 2033 Notes are categorized as Level 2 inputs. Level 2 inputs include quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

### **3.25% Convertible Senior Notes Due 2023**

In November 2016, the Company completed an underwritten public offering of \$230.0 million of 3.25% convertible senior notes, due 2023 (the "Convertible Senior 2023 Notes") for net proceeds of approximately \$222.5 million. The Company incurred approximately \$7.5 million in debt issuance costs, which are being amortized to interest expense over the estimated life of the Convertible Senior 2023 Notes. The Convertible Senior 2023 Notes bear an annual interest rate of 3.25%, payable semi-annually in arrears, on November 1 and May 1 of each year, which commenced on May 1, 2017.

The Convertible Senior 2023 Notes are senior unsecured obligations and rank senior in right of payment to any of the Company's indebtedness that is expressly subordinated in right of payment to the Convertible Senior 2023 Notes; equal in right of payment to any of the Company's indebtedness that is not so subordinated; effectively junior in right of payment to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of the Company's subsidiaries.

The Convertible Senior 2023 Notes will mature on November 1, 2023, unless earlier redeemed or repurchased by the Company or converted. Holders may convert their Convertible Senior 2023 Notes into ordinary shares at an initial conversion rate of 29.0276 shares for each \$1,000 principal amount of Convertible Senior 2023 Notes, which is equivalent to an initial conversion price of approximately \$34.45 per share, subject to adjustment, in certain circumstances (including upon the occurrence of a fundamental change), at any time prior to the close of business on the second business day immediately preceding the maturity date. Upon the occurrence of a fundamental change involving the Company, holders of the Convertible Senior 2023 Notes may require the Company to repurchase all or a portion of

their Convertible Senior 2023 Notes for cash at a redemption price equal to 100% of the principal amount of the Convertible Senior 2023 Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, in some circumstances, the conversion rate of the Convertible Senior 2023 Notes will increase with a make whole premium for conversions in connection with certain fundamental changes.

The debt issuance costs related to the Convertible Senior 2023 Notes offering were capitalized as deferred financing costs and presented as a reduction of the carrying value of the financial liability on the Company's consolidated balance sheets at December 31, 2019 and 2018.

The estimated fair value of the Convertible Senior 2023 Notes was \$236.0 million and \$235.0 million at December 31, 2019 and 2018, respectively. The estimated fair value was primarily based upon the underlying price of Theravance Biopharma's publicly traded shares and other observable inputs as of December 31, 2019 and 2018. The inputs to determine fair value of the Convertible Senior 2023 Notes are categorized as Level 2 inputs. Level 2 inputs include quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

## 8. Leases

The Company leases approximately 170,000 square feet of office and laboratory space in two buildings in South San Francisco, California, under a non-cancelable operating lease that ends in May 2030 ("SSF Lease") and includes a tenant improvement allowance with a remaining balance of \$15.6 million, as of December 31, 2019, that expires in May 2022. The Company's Irish subsidiary leases approximately 6,100 square feet of office space in Dublin, Ireland under a lease that expires in April 2027 ("Dublin Lease"). In addition, the Company leases equipment for clinical research studies with an estimated lease period ending in September 2020.

The SSF Lease contains two options to extend the term of the lease for successive periods of five years each, and the Dublin Lease contains a lease termination option in April 2024 at the Company's discretion. The two options to extend the SSF Lease and the option to terminate the Dublin Lease were not recognized in the determination of the Company's right-of-use assets and lease liabilities below.

The Company has evaluated its leases and determined that they were all operating leases. The present values of the remaining lease payments and corresponding right-of-use assets were as follows, and the difference between the right-of-use assets and lease liabilities was due to deferred rent payments that are payable in future periods.

<u>(In thousands)</u>	<u>Classification</u>	<u>December 31, 2019</u>
<u>Assets</u>		
Operating lease assets	Operating lease assets	\$ 46,604
<u>Liabilities</u>		
<i>Current:</i>		
Operating lease liabilities	Operating lease liabilities	\$ 7,762
<i>Non-current:</i>		
Operating lease liabilities	Long-term operating lease liabilities	47,725
Total operating lease liabilities		\$ 55,487

Lease expense was included within operating expenses in the consolidated statements of operations as follows:

<u>(In thousands)</u>	<u>Classification</u>	<u>Year Ended December 31, 2019</u>
Operating lease expense	Selling, general and administrative expenses	\$ 9,964
Operating lease expense	Research and development expenses	164
Total operating lease expense <sup>(1)</sup>		\$ 10,128

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(1) Includes short-term leases which were immaterial.

As of December 31, 2019, the maturities of the Company's lease liabilities were as follows:

<b>(In thousands)</b>	
<b>Years ending December 31:</b>	
2020	\$ 7,940
2021	9,480
2022	9,745
2023	10,023
2024	10,309
Thereafter	59,860
Total operating lease payments	\$ 107,357
Less: Estimated tenant improvement allowance	(15,561)
Less: Imputed interest	(36,309)
Present value of operating lease liabilities	<u>\$ 55,487</u>

Cash paid for amounts included in the measurement of lease liabilities for the year ended December 31, 2019 was \$7.2 million and is included in net cash used in operating activities in the consolidated statements of cash flows. As of December 31, 2019, the weighted-average remaining lease term was 10.2 years, and the weighted-average discount rate used to determine the lease liabilities was 8.65%. The Company's discount rate was primarily derived from the 9.0% interest rate on its Non-Recourse 2033 Notes issued in November 2018 and did not involve any significant assumptions.

### **9. Theravance Respiratory Company, LLC**

Prior to the June 2014 spin-off from Innoviva (the "Spin-Off"), the Company's former parent company, Innoviva assigned to TRC, a Delaware limited liability company formed by Innoviva, its strategic alliance agreement with GSK and all of its rights and obligations under its collaboration agreement with GSK other than with respect to RELVAR<sup>®</sup> ELLIPTA<sup>®</sup>/BREO<sup>®</sup> ELLIPTA<sup>®</sup>, ANORO<sup>®</sup> ELLIPTA<sup>®</sup> and vilanterol monotherapy. Through the Company's 85% equity interest in TRC, the Company is entitled to receive an 85% economic interest in any future payments made by GSK under the strategic alliance agreement and under the portion of the collaboration agreement assigned to TRC (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters). The drug programs assigned to TRC include TRELEGY ELLIPTA and the inhaled Bifunctional Muscarinic Antagonist-Beta2 Agonist ("MABA") program, as monotherapy and in combination with other therapeutically active components, such as an inhaled corticosteroid ("ICS"), and any other product or combination of products that may be discovered and developed in the future under the GSK agreements.

In May 2014, the Company entered into the TRC LLC Agreement with Innoviva that governs the operation of TRC. Under the TRC LLC Agreement, Innoviva is the manager of TRC, and the business and affairs of TRC are managed exclusively by the manager, including (i) day to day management of the drug programs in accordance with the existing GSK agreements; (ii) preparing an annual operating plan for TRC; and (iii) taking all actions necessary to ensure that the formation, structure and operation of TRC complies with applicable law and partner agreements. The Company is responsible for its proportionate share of TRC's administrative expenses incurred, and communicated to the Company, by Innoviva.

The Company analyzed its ownership, contractual and other interests in TRC to determine if it is a variable-interest entity ("VIE"), whether the Company has a variable interest in TRC and the nature and extent of that interest. The Company determined that TRC is a VIE. The party with the controlling financial interest, the primary beneficiary, is required to consolidate the entity determined to be a VIE. Therefore, the Company also assessed whether it is the primary beneficiary of TRC based on the power to direct TRC's activities that most significantly impact TRC's economic performance and its obligation to absorb TRC's losses or the right to receive benefits from TRC that could potentially be significant to TRC. Based on the Company's assessment, the Company determined that it is not the

primary beneficiary of TRC, and, as a result, the Company does not consolidate TRC in its consolidated financial statements. TRC is recognized in the Company's consolidated financial statements under the equity method of accounting, and the value of the Company's equity investment in TRC was \$28.6 million and \$5.4 million as of December 31, 2019 and 2018, respectively. This amount includes undistributed earnings from the Company's investment in TRC which are recorded on the consolidated balance sheets as "Amounts due from TRC, LLC" and are net of the Company's proportionate share of TRC's administrative expenses incurred, and communicated to the Company, by Innoviva. Pursuant to the TRC operating agreement, the cash from the TRELEGY ELLIPTA royalties, net of any expenses, is distributed to the equity holders quarterly.

For the years ended December 31, 2019 and 2018, the Company recognized net royalty income of \$33.7 million and \$11.2 million, respectively, within the consolidated statements of operations within "Income from investment in TRC, LLC". These amounts were recorded net of the Company's share of TRC's expenses of \$2.7 million for year ended December 31, 2019, which was primarily comprised of TRC's legal and related fees associated with the arbitration between Innoviva and TRC and the Company. There were minimal TRC expenses for the year ended December 31, 2018.

In May 2019, the Company announced that it had initiated an arbitration against Innoviva and TRC because Innoviva, as manager of TRC, had caused TRC to withhold certain distributions owed to the Company with respect to the Company's 85% economic interest in TRC since the quarter ended December 31, 2018, and Innoviva's previous statement to the Company that it intended to prevent TRC from making cash distributions during 2019. The arbitration hearing commenced in July 2019.

In September 2019, the arbitrator issued a final decision. The arbitrator ruled that, while Innoviva breached the TRC LLC Agreement by failing to provide quarterly financial plans to the Company as required, the withholding of funds by Innoviva with respect to certain TRELEGY ELLIPTA development and commercialization initiatives proposed by Innoviva was not in breach of the TRC LLC Agreement. The arbitrator also found that Innoviva had not breached its fiduciary duties to the Company. The arbitrator awarded injunctive relief to give more certainty to future dealings between the parties and to clarify certain terms of the TRC LLC Agreement, and imposed additional obligations on Innoviva to obtain the consent of GSK for any proposed investment of TRC funds that requires the consent of GSK under the collaboration agreement dated November 14, 2002, as amended. Under the arbitrator's ruling, Innoviva was permitted to withhold \$8.0 million of TRC funds for certain TRELEGY ELLIPTA development and commercialization initiatives proposed by Innoviva. These initiatives were presented to GSK in the fourth quarter of 2019 and could not be implemented without GSK's approval, which was required by no later than during the first quarter of 2020.

As of June 30, 2019, the Company was owed, under the TRC LLC Agreement, \$20.0 million in net royalty income payments for the period from the fourth quarter of 2018 through the second quarter of 2019. After initiation of the arbitration and prior to the final decision being issued in the third quarter of 2019, Innoviva caused TRC to make a partial distribution of funds to the Company of \$10.6 million against these amounts due. Innoviva withheld \$6.9 million, representing the Company's share of the \$8.0 million of total TRC funds earmarked for certain TRELEGY ELLIPTA development and commercialization initiatives proposed by Innoviva, pursuant to the arbitrator's final decision. The \$2.5 million difference between the \$20.0 million and the combined \$10.6 million and \$6.9 million represented legal-related expenses incurred by TRC.

In January 2020, the Company was informed by Innoviva that GSK had declined to adopt certain TRELEGY ELLIPTA development and commercialization initiatives proposed by Innoviva. As a result, Innoviva would not continue to withhold any funds that had been reserved for those initiatives, and the Company subsequently received \$15.8 million in a distribution from Innoviva representing its share of the net royalty income payments for the third quarter of 2019 plus the \$6.9 million previously withheld, less estimated TRC expenses for the quarter ended December 31, 2019 and estimated expenses through 2020. The amount due to the Company from TRC, as of December 31, 2019, was \$28.6 million.



## 10. Property and Equipment

Property and equipment is held predominantly in the US and consisted of the following:

(In thousands)	December 31,	
	2019	2018
Computer equipment	\$ 2,119	\$ 2,522
Software	1,718	3,577
Furniture and fixtures	3,665	3,759
Laboratory equipment	30,546	31,164
Leasehold improvements	22,164	21,849
Subtotal	60,212	62,871
Less: accumulated depreciation	(47,568)	(49,695)
Property and equipment, net	\$ 12,644	\$ 13,176

For the years ended December 31, 2019, 2018 and 2017, depreciation expense for property and equipment was \$3.3 million, \$3.0 million and \$2.5 million, respectively.

## 11. Share-Based Compensation

### *Theravance Biopharma Equity Plans*

The Company has three equity compensation plans — its 2013 Equity Incentive Plan (the “2013 EIP”), its 2013 Employee Share Purchase Plan (the “2013 ESPP”) and its 2014 New Employee Equity Incentive Plan (the “2014 NEEIP”). At inception, the Company was authorized to issue 5,428,571 ordinary shares under the 2013 EIP, 857,142 ordinary shares under the 2013 ESPP, and 750,000 ordinary shares under the 2014 NEEIP.

The 2013 EIP provides for the issuance of share-based awards, including restricted shares, restricted share units, options, share appreciation rights (“SARs”) and other equity-based awards, to Company employees, officers, directors and consultants. As of January 1 of each year, commencing on January 1, 2015 and ending on (and including) January 1, 2023, the aggregate number of ordinary shares that may be issued under the 2013 EIP shall automatically increase by a number equal to the least of 5% of the total number of ordinary shares outstanding on December 31 of the prior year, 3,428,571 ordinary shares, or a number of ordinary shares determined by the Company’s board of directors. Options may be granted with an exercise price not less than the fair market value of the ordinary shares on the grant date. Under the terms of the Company’s 2013 EIP, options granted to employees generally have a maximum term of 10 years and vest over a four-year period from the date of grant; 25% vest at the end of one year, and 75% vest monthly over the remaining three years. The Company may grant options with different vesting terms from time to time. Unless an employee’s termination of service is due to disability or death, upon termination of service, any unexercised vested options will generally be forfeited at the end of three months or the expiration of the option, whichever is earlier.

Under the 2013 ESPP, the Company’s officers and employees may purchase ordinary shares through payroll deductions at a price equal to 85% of the lower of the fair market value of the ordinary share at the beginning of the offering period or at the end of each applicable purchase period. As of January 1 of each year, commencing on January 1, 2015 and ending on (and including) January 1, 2023, the aggregate number of ordinary shares that may be issued under the 2013 ESPP shall automatically increase by a number equal to the least of 1% of the total number of ordinary shares outstanding on December 31 of the prior year, 571,428 ordinary shares or a number of ordinary shares determined by the Company’s board of directors. The ESPP generally provides for consecutive and overlapping offering periods of 24 months in duration, with each offering period generally composed of four consecutive six-month purchase periods. The purchase periods end on either May 15 or November 15. ESPP contributions are limited to a maximum of 15% of an employee’s eligible compensation. The 2013 ESPP also includes a feature that provides for the existing offering period to terminate and for participants in that offering period to automatically be enrolled in a new offering period when the fair market value of an ordinary share at the beginning of a subsequent offering period falls below the fair market value of an ordinary share on the first day of such offering period.

The 2014 NEEIP provides for the issuance of share-based awards, including restricted shares, restricted share units, non-qualified options and SARs, to the Company's employees. Options may be granted with an exercise price not less than the fair market value of the ordinary shares on the grant date. Under the terms of the 2014 NEEIP, options granted to employees generally have a maximum term of 10 years and vest over a four-year period from the date of grant; 25% vest at the end of one year, and 75% vest monthly over the remaining three years. The Company may grant options with different vesting terms from time to time. Unless an employee's termination of service is due to disability or death, upon termination of service, any unexercised vested options will generally be forfeited at the end of three months or the expiration of the option, whichever is earlier.

### ***Innoviva's Equity Plans***

Prior to the Spin-Off, the Company's employees may have received Innoviva stock-based compensation awards, and, therefore, the following disclosures include information regarding stock-based compensation expense allocated to Theravance Biopharma that relates to Innoviva stock-based equity awards.

At the time of the Spin-Off, Innoviva had one active stock-based incentive plan under which it granted stock-based awards to employees, officers and consultants, the 2012 Equity Incentive Plan. All outstanding stock options and restricted stock units ("RSUs") held by (i) Innoviva employees who became the Company's employees; and (ii) members of the board of directors of Innoviva who became members of the Company's board of directors, in connection with the Spin-Off were adjusted for the Spin-Off. Such awards, along with outstanding restricted stock awards ("RSAs") held by Innoviva employees who became the Company's employees in connection with the Spin-Off, will continue to vest and remain outstanding based on continuing employment or service with the Company.

The 2012 Equity Incentive Plan provided for the grant of incentive stock options, non-statutory stock options, restricted stock awards, stock unit awards and SARs to employees, non-employee directors and consultants. Stock options were granted with an exercise price not less than the fair market value of the common stock on the grant date. Stock options granted to employees generally have a maximum term of 10 years and vest over a four-year period from the date of grant; 25% vest at the end of one year, and 75% vest monthly over the remaining three years. However, Innoviva granted options with different vesting terms from time to time. Unless an employee's termination of service is due to disability or death, upon termination of service, any unexercised vested options will be forfeited at the end of three months or the expiration of the option, whichever is earlier.

### ***Employee Share Option Exchange Program***

On August 28, 2015, the Company gave eligible share option holders of the Company and its subsidiaries the opportunity to exchange some or all of their outstanding options granted under the 2013 EIP or the 2014 NEEIP before August 4, 2015, whether vested or unvested, for RSUs (the "Exchange Program"). The Exchange Program was designed to restore the intended employee retention and incentive value of the equity awards.

In accordance with the terms of the Exchange Program, employees who held options that had an exercise price above the market price of the Company's ordinary shares at the offer expiration date were eligible to exchange two shares subject to eligible options for one RSU granted under the terms of the 2013 EIP. The RSUs granted under the Exchange Program vest over a three or four-year service period depending on the grant date of the original option exchanged. The Company's executive officers and members of the board of directors were not eligible to participate in the Exchange Program.

The Exchange Program closed on September 25, 2015, and the Company exchanged 1,975,009 outstanding options for 987,496 RSUs with a fair value of \$12.43 per share. The exchange of options for RSUs was considered a modification to the terms of the original equity award. As such, the Exchange Program resulted in incremental share-based compensation costs of \$1.4 million to be recognized, concurrently with the unamortized original compensation costs of the exchanged option awards, ratably over the new vesting period of three years. For the years ended December 31, 2018 and 2017, the Company recognized \$0.3 million and \$0.5 million, respectively, of the \$1.4 million in incremental share-based compensation costs. There was no such expense recognized for the year ended December 31, 2019.

### **Performance-Contingent Awards**

In 2016, the Compensation Committee of the Company's board of directors ("Compensation Committee") approved the grant of 1,575,000 performance-contingent restricted share awards ("RSAs") and 135,000 performance-contingent restricted share units ("RSUs") to senior management. The vesting of such awards is dependent on the Company meeting its critical operating goals and objectives during the five-year period from 2016 to December 31, 2020, as well as, continued employment. The goals that must be met in order for the performance-contingent RSAs and RSUs to vest are strategically important for the Company, and the Compensation Committee believes the goals, if achieved, will increase shareholder value. The awards have dual triggers of vesting based upon the achievement of these goals and continued employment.

Expense associated with these awards may be recognized during the years 2016 to 2020 depending on the probability of meeting certain performance conditions. Compensation expense relating to awards subject to performance conditions is recognized if it is considered probable that the performance goals will be achieved. The probability of achievement is reassessed at each quarter-end reporting period. Previously recognized expense is reversed in the period in which it becomes probable that the requisite service period will not be rendered. The awards are broken into three separate tranches and comprised of a share-based award component and a cash bonus award component. See "Note 13. Commitments and Contingencies" for information related to the cash bonus award component.

As of December 31, 2019, there were 776,250 of these performance-contingent RSAs and 101,250 of these performance-contingent RSUs outstanding, and as of December 31, 2018, there were 978,750 of these performance-contingent RSAs and 101,250 of these performance-contingent RSUs outstanding. The performance conditions associated with the first tranche of these awards were completed in the second quarter of 2018, and the Company recognized \$1.7 million and \$2.6 million of share-based compensation expense for the year ended December 31, 2018 and 2017, respectively, associated with the first tranche of these awards.

The performance conditions associated with the second tranche of these awards were completed in the first quarter of 2019. For year ended December 31, 2019, 2018 and 2017, the Company recognized \$1.9 million, \$2.6 million and \$6.3 million, respectively, of share-based compensation expense related to the second tranche of these awards. As of December 31, 2019, the maximum remaining expense associated with the second tranche is \$0.4 million (allocated as \$0.1 million for research and development expense and \$0.3 million for selling, general and administrative expense) and will be amortized through the first quarter of 2020.

In the fourth quarter of 2019, the Company determined that the remaining third tranche was probable of vesting and, as a result, recognized \$9.8 million of share-based compensation expense related to the third tranche. The maximum remaining expense associated with the third tranche is \$2.9 million (allocated as \$1.0 million for research and development expense and \$1.9 million for selling, general and administrative expense) and will be amortized through the first quarter of 2021.

Separate from the performance-contingent awards described above, the Company periodically grants performance-contingent RSUs to individual employees. For the year ended December 31, 2019, the Company recognized \$1.0 million of share-based compensation expense related to such awards. As of December 31, 2019, there were 173,000 shares of these performance-contingent RSUs outstanding that have a maximum remaining share-based compensation expense of \$2.6 million with performance expiration dates ranging from December 2020 to June 2022.

### **Share-Based Compensation Expense**

The allocation of share-based compensation expense included in the consolidated statements of operations was as follows:

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>
Research and development	\$ 28,953	\$ 25,563	\$ 22,691
Selling, general and administrative	31,497	25,750	26,454
Total share-based compensation expense	\$ 60,450	\$ 51,313	\$ 49,145

Share-based compensation expense included in the consolidated statements of operations by award type was as follows:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
<i>Innoviva equity:</i>			
Options	\$ —	\$ 280	\$ 2,973
RSUs	—	—	224
RSAs	64	457	660
Performance RSAs	—	—	1
<i>Theravance Biopharma equity:</i>			
Options	6,381	8,441	7,969
RSUs	39,520	34,077	25,959
Performance RSAs and RSUs	12,717	4,707	9,224
ESPP	1,768	3,351	2,135
Total share-based compensation expense	<u>\$ 60,450</u>	<u>\$ 51,313</u>	<u>\$ 49,145</u>

Total share-based compensation expense capitalized to inventory was not material for any of the periods presented.

As of December 31, 2019, the unrecognized share-based compensation cost, net of actual forfeitures, and the estimated weighted-average amortization period, using the straight-line attribution method, was as follows:

(In thousands, except amortization period)	Unrecognized Compensation Cost	Weighted-Average Amortization Period (Years)
<i>Theravance Biopharma equity:</i>		
Options	\$ 13,120	2.87
RSUs	93,104	2.80
Performance RSAs and RSUs <sup>(1)</sup>	3,681	0.76
ESPP	3,003	0.77
Total	<u>\$ 112,908</u>	

(1) Represents unrecognized share-based compensation cost associated with the Company's performance-contingent awards described above that are probable of vesting.

### Compensation Awards

The following table summarizes option activity under the 2013 EIP and 2014 NEEIP for the year ended December 31, 2019:

	Number of Shares Subject to Outstanding Options	Weighted-Average Exercise Price of Outstanding Options
Outstanding at December 31, 2018	3,063,169	\$ 26.70
Granted	960,850	20.25
Exercised	(164,076)	19.15
Forfeited	(909,471)	27.57
Outstanding at December 31, 2019	<u>2,950,472</u>	<u>\$ 24.75</u>

As of December 31, 2019, 2018 and 2017, the aggregate intrinsic value of the options outstanding was \$8.5 million, \$5.1 million and \$8.0 million, respectively. As of December 31, 2019, the aggregate intrinsic value of the options exercisable was \$3.8 million. The total estimated fair value of options vested (excluding vested options that have expired) was \$6.2 million, \$8.4 million and \$8.2 million in 2019, 2018 and 2017, respectively.

The following table summarizes total RSU and RSA activity (including performance RSUs and RSAs) for the years ended December 31, 2019, 2018 and 2017:

	Number of Shares Subject to Outstanding RSUs	Number of Shares Outstanding Subject to Performance Conditions (RSAs)
Outstanding at December 31, 2018	3,069,403	978,750
Granted	3,959,496	—
Released	(1,307,842)	—
Forfeited	(781,283)	(202,500)
Outstanding at December 31, 2019	<u>4,939,774</u>	<u>776,250</u>

As of December 31, 2019, the aggregate intrinsic value of the RSUs and RSAs outstanding was \$127.9 million and \$20.1 million, respectively. The total estimated fair value of RSUs vested was \$32.4 million, \$31.6 million and \$25.1 million in 2019, 2018 and 2017, respectively.

### Valuation Assumptions

The range of assumptions used to estimate the fair value of options granted and rights granted under the 2013 ESPP was as follows:

	Year Ended December 31,		
	2019	2018	2017
<b>Options</b>			
Risk-free interest rate	1.6% - 2.5%	2.3% - 3.0%	2.0% - 2.1%
Expected term (in years)	6.0	6.0	6.0
Volatility	51% - 53%	53% - 54%	54% - 56%
Dividend yield	—	—	—
Weighted-average estimated fair value	\$ 10.20	\$ 14.32	\$ 17.29
<b>2013 ESPP</b>			
Risk-free interest rate	1.5% - 2.4%	2.1% - 2.8%	0.9% - 1.7%
Expected term (in years)	0.5 - 2.0	0.5 - 2.0	0.5 - 2.0
Volatility	40% - 48%	42% - 53%	41% - 56%
Dividend yield	—	—	—
Weighted-average estimated fair value	\$ 6.17	\$ 9.13	\$ 7.09

## 12. Income Taxes

Theravance Biopharma was incorporated in the Cayman Islands in July 2013 under the name Theravance Biopharma, Inc. as a wholly-owned subsidiary of Innoviva and began operations subsequent to the Spin-Off with wholly-owned subsidiaries in the Cayman Islands, US, United Kingdom, and Ireland. Effective July 1, 2015, Theravance Biopharma became an Irish tax resident, therefore, the loss before income taxes of Theravance Biopharma, the parent company, are included in Ireland in the tables below.

The components of the loss before income taxes were as follows:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Income (loss) before provision for income taxes:			
Cayman Islands	\$ 11,779	\$ 14,838	\$ (163,770)
United States	(99,225)	(69,695)	(33,374)
Ireland	(154,217)	(171,134)	(74,472)
United Kingdom	(14)	(94)	(95)
Total	<u>\$ (241,677)</u>	<u>\$ (226,085)</u>	<u>\$ (271,711)</u>

The components of provision for income tax benefit (expense) were as follows:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Provision for income tax benefit (expense):			
Current:			
Cayman Islands	\$ —	\$ —	\$ —
United States	5,210	10,563	(13,091)
Ireland	—	—	(566)
United Kingdom	12	(2)	(37)
Subtotal	5,222	10,561	(13,694)
Deferred	—	—	—
Total	\$ 5,222	\$ 10,561	\$ (13,694)
Effective tax rate	2.16 %	4.67 %	(5.04) %

The provision for income tax benefit (expense) was \$5.2 million, \$10.6 million and (\$13.7) million for the years ended December 31, 2019, 2018 and 2017 respectively.

The 2019 net income tax benefit was primarily attributed to a reversal of previously accrued contingent tax liabilities for uncertain tax positions due to a lapse of the statute of limitations and current year US research and development credits. The 2018 net income tax benefit was primarily due to additional tax loss generated in 2017 by the US entity as a result of the finalization of transfer pricing policy, current year US research and development credit, and the release of previously recorded contingent tax liabilities due to the lapse of the statute of limitations. The provision for income tax recorded in 2017 primarily resulted from contingent tax liabilities related to uncertain tax positions taken with respect to transfer pricing and tax credits.

No provision for income taxes has been recognized on undistributed earnings of the Company's foreign subsidiaries because it considers such earnings to be indefinitely reinvested. In the event of a distribution of these earnings in the form of dividends or otherwise, the Company may be liable for income taxes, subject to an adjustment, if any, for foreign tax credits and foreign withholdings taxes payable to certain foreign tax authorities. As of December 31, 2019, there were no undistributed earnings.

As a result of the Company becoming an Irish tax resident effective July 1, 2015, the tax rates reflect the Irish statutory rate of 25%. The differences between the Irish statutory income tax rate and the Company's effective tax rates were as follows:

	Year Ended December 31,		
	2019	2018	2017
Provision at statutory income tax rate	25.00 %	25.00 %	25.00 %
Foreign rate differential	(6.96)	(7.51)	(18.17)
Share-based compensation	(1.17)	0.28	1.52
Non-deductible executive compensation	(0.51)	(0.72)	(1.03)
Uncertain tax positions	(0.63)	(4.00)	(6.55)
Research and development tax credit carryforwards	2.50	1.79	1.21
Federal tax reform - Tax rate change	—	—	(4.66)
Foreign exchange loss	—	8.52	—
Change in valuation allowance	(14.90)	(18.82)	(5.15)
Other	(1.17)	0.13	2.79
Effective tax rate	2.16 %	4.67 %	(5.04) %

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities were as follows:

(In thousands)	December 31,	
	2019	2018
Deferred tax assets:		
Net operating loss carryforwards	\$ 58,161	\$ 33,396
Capital loss carryforwards	19,409	19,409
Research and development tax credit carryforwards	15,723	8,508
Fixed assets and intangibles	285,341	285,821
Share-based compensation	15,480	12,479
Accruals	8,245	8,343
Operating lease liabilities	11,358	—
Other	7	—
Subtotal	413,724	367,956
Valuation allowance	(403,836)	(367,748)
Total deferred tax assets	9,888	208
Deferred tax liabilities:		
Operating lease assets	(9,429)	—
Prepaid assets	(459)	(208)
Total deferred tax liabilities	(9,888)	(208)
Net deferred tax assets/liabilities	\$ —	\$ —

The Company follows the accounting guidance related to accounting for income taxes which requires that a company reduce its deferred tax assets by a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of its deferred tax assets will not be realized. As of December 31, 2019, the Company's deferred tax assets were offset in full by a valuation allowance.

On January 1, 2018, the Company adopted ASU 2016-16, *Income Taxes (Topic 740), Intra-Entity Transfers of Assets Other Than Inventory* ("ASU 2016-16") using the modified retrospective approach. ASU 2016-16 requires immediate recognition of income tax consequences of intra-company asset transfers, other than inventory transfers. Legacy GAAP prohibited recognition of income tax consequences of intra-company asset transfers whereby the seller defers any net tax effect and the buyer is prohibited from recognizing a deferred tax asset on the difference between the newly created tax basis of the asset in its tax jurisdiction and its financial statement carrying amount as reported in the consolidated financial statements. An example of an inter-company asset transfers included in ASU 2016-16's scope is intellectual property. On October 2, 2017, Theravance Biopharma R&D, Inc. (Cayman Islands) transferred its economic interests in certain intellectual property to Theravance Biopharma Ireland Limited. The transfer was classified as an intra-company sale of assets for both financial reporting and income tax purposes. The Company recorded a deferred tax asset of \$282.7 million fully offset by a valuation allowance as a result of the sale of intellectual property. The adoption of this pronouncement did not have a material impact on the Company's consolidated balance sheet or statement of operations.

The valuation allowance as of December 31, 2019 increased from \$367.7 million (the valuation allowance as of December 31, 2018) to \$403.8 million, primarily as a result of additional tax loss generated in various jurisdictions during the current year and the additional research tax credit generated in the US. Valuation allowances require an assessment of both positive and negative evidence when determining whether it is more likely than not that the deferred tax assets are recoverable. As required, the Company prepares its assessment of the realizability of deferred tax assets on a jurisdiction-by-jurisdiction basis.

As of December 31, 2019, the Company had \$163.6 million of US federal net operating loss carryforwards and \$17.9 million of federal research and development tax credit carryforwards which expire beginning in 2035. After the

enactment of the Tax Cut and Jobs Act (the “Tax Act”) in December 2017, the operating losses generated had an indefinite carryforward life, but was limited to 80% of taxable income when utilized. As of December 31, 2019, this amount was \$118.7 million. The Company had state net operating loss carryforwards of \$71.9 million which generally begin to expire in 2034 and state research and development credit carryforwards of \$18.9 million to be carried forward indefinitely.

The Company also had Irish net operating loss carryforwards of \$352.9 million with no expiration date and capital loss carryforwards of \$58.8 million to be carried forward indefinitely.

Utilization of net operating loss and tax credit carryforwards may be subject to an annual limitation due to ownership change limitations provided by the Internal Revenue Code and similar state provisions. Annual limitations may result in expiration of net operating loss and tax credit carryforwards before some or all of such amounts have been utilized.

The Company’s policy is to recognize interest and/or penalties related to income tax matters in income tax expense. The amount of tax expense related to interest or penalties was immaterial for the years ended December 31, 2019 and 2018.

### **Uncertain Tax Positions**

A reconciliation of the beginning and ending balances of the total amounts of unrecognized tax benefits were as follows:

<b>(In thousands)</b>	
Unrecognized tax benefits as of December 31, 2017	\$ 41,794
Gross decrease in tax positions for prior years	(685)
Gross increase in tax positions for current year	11,295
Unrecognized tax benefits as of December 31, 2018	52,404
Gross decrease in tax positions for prior years	(2,010)
Gross increase in tax positions for current year	8,369
Unrecognized tax benefits as of December 31, 2019	<u>\$ 58,763</u>

The Company records liabilities related to uncertain tax positions in accordance with the income tax guidance which clarifies the accounting for uncertainty in income taxes recognized in an enterprise’s financial statements by prescribing a minimum recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Resolution of one or more of these uncertain tax positions in any period may have a material impact on the results of operations for that period. The Company includes any applicable interest and penalties within the provision for income taxes in the consolidated statements of operations.

The total unrecognized tax benefits of \$58.8 million and \$52.4 million, as of December 31, 2019 and December 31, 2018, respectively, may reduce the effective tax rate in the period of recognition. Within the next twelve months, the Company is no longer subject to IRS tax audit examinations for the years ended on or before December 31, 2016. However, carryforward tax attributes that were generated in years beginning on or before January 1, 2017 may still be adjusted upon examination by tax authorities since the attributes are not yet utilized. As of December 31, 2019, the Company believes it is reasonably possible that its unrecognized tax benefits and related interest recorded for various US matters could decrease by approximately \$8.0 million in the next twelve months. The Company does not expect to record any other material reductions in the measurement of its unrecognized tax benefits within the next twelve months. The Company currently has a full valuation allowance against its deferred tax assets, which would impact the timing of the effective tax rate benefit should any of these uncertain positions be favorably settled in the future.

The Company is subject to taxation in Ireland, the US, and various other jurisdictions. The tax years 2016 and forward remain open to examination in Ireland, tax years 2016 and forward remain open to examination in the US, and the tax years 2013 and forward remain open to examination in other jurisdictions.



The Company's future income tax expense may be affected by such factors as changes in tax laws, its business, regulations, tax rates, interpretation of existing laws or regulations, the impact of accounting for share-based compensation, the impact of accounting for business combinations, its international organization, shifts in the amount of income before tax earned in the US as compared with other regions in the world, and changes in overall levels of income before tax.

### ***US Tax Reform***

In December 2017, the US government enacted the Tax Act. The Tax Act significantly revises the US corporate income tax laws by, amongst other things, reducing the corporate income tax rate from 35% to 21% and implementing a modified territorial tax system that includes a one-time repatriation tax on accumulated undistributed foreign earnings.

In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which allowed the Company to record provisional amounts for the Tax Act during a measurement period not to extend beyond one year of the enactment date, with further clarifications made recently with the issuance of amendments to SAB 118. The Company has completed its assessment of the Tax Act and did not have any significant adjustments to its provisional amount of \$12.4 million related to the reduction in the corporate income tax rate from 35% to 21%.

## **13. Commitments and Contingencies**

### ***Performance-Contingent Awards***

In 2016, the Compensation Committee granted long-term retention RSAs and RSUs to members of senior management and incentive cash bonus awards to certain employees. The vesting and payout of such awards is dependent on the Company meeting its critical operating goals and objectives during a five-year period from 2016 to December 31, 2020. These goals are strategically important for the Company, and it believes the goals, if achieved, will increase shareholder value. The awards have dual triggers of vesting based upon the achievement of these goals and continued employment.

Expense associated with these awards may be recognized during the years 2016 to 2020 depending on the probability of meeting certain performance conditions. Compensation expense relating to awards subject to performance conditions is recognized if it is considered probable that the performance goals will be achieved. The probability of achievement is reassessed at each quarter-end reporting period. Previously recognized expense is reversed in the period in which it becomes probable that the requisite service period will not be rendered. The awards are broken into three separate tranches and comprised of a share-based award component and a cash bonus award component. See "Note 11. Share-Based Compensation" for information related to the share-based award component.

The performance conditions associated with the first tranche of the cash bonus awards were completed in the second quarter of 2018, and the Company recognized \$3.5 million and \$9.5 million of cash bonus expense for the year ended December 31, 2018 and 2017, respectively, associated with the first tranche of these awards.

The performance conditions associated with the second tranche of these awards were completed in the first quarter of 2019. For year ended December 31, 2019, 2018 and 2017, the Company recognized \$2.4 million, \$1.9 million and \$8.7 million, respectively, of cash bonus expense related to the second tranche of these awards. As of December 31, 2019, the maximum remaining cash bonus expense associated with the second tranche was \$0.5 million (allocated as \$0.4 million for research and development expense and \$0.1 million for selling, general and administrative expense) and will be amortized through the first quarter of 2020.

In the fourth quarter of 2019, the Company determined that the remaining third tranche was probable of vesting, and, as a result, recognized \$11.8 million in cash bonus expense for the year ended December 31, 2019. As of December 31, 2019, the maximum remaining cash bonus expense associated with the third tranche was \$3.5 million (allocated as \$2.7 million for research and development expense and \$0.8 million for selling, general and administrative expense) and will be amortized through the first quarter of 2021.

### ***Guarantees and Indemnifications***

The Company indemnifies its officers and directors for certain events or occurrences, subject to certain limits. The Company believes the fair value of these indemnification agreements is minimal. Accordingly, the Company has not recognized any liabilities relating to these agreements as of December 31, 2019.

### **14. Reduction in Workforce**

In January 2019, the Company announced a reduction in workforce to align with its focus on continued execution of key strategic programs and advancement of selected late-stage research programs toward clinical development. The Company reduced its overall headcount by 51 individuals, with the affected employees primarily focused on early research or the infrastructure in support of VIBATIV, which was sold by the Company to Cumberland in November 2018.

The workforce reduction was substantially completed in the first quarter of 2019, and the Company recorded and paid severance related charges totaling \$3.5 million for the year ended December 31, 2019, including compensation expense made to affected employees through any minimum statutory notice periods. The severance related charges are presented on the consolidated statements of operations within research and development expenses and selling, general and administrative expenses.

### **15. Subsequent Events**

#### *Public Offering of Ordinary Shares*

On February 12, 2020, the Company sold 5,500,000 ordinary shares at a price to the public of \$27.00 per share (the “Shares”). The gross proceeds to the Company from the offering were approximately \$148.5 million, before deducting underwriting discounts and commissions and estimated offering expenses. The Shares were issued pursuant to the Company’s currently effective shelf registration statement on Form S-3 and an accompanying prospectus (File No. 333-235339) filed with the SEC, which became effective automatically on December 3, 2019, and a prospectus supplement filed with the SEC in connection with the offering.

#### *Refinancing of Non-Recourse 2033 Notes*

On February 21, 2020, Theravance Biopharma R&D, Inc., a Cayman Islands exempted company (“Theravance R&D”), a wholly-owned subsidiary of the Company, and Triple Royalty Sub II LLC, a Delaware limited liability company (the “Issuer II”) and wholly-owned subsidiary of Theravance Biopharma R&D, entered into certain note purchase agreements (each, a “Note Purchase Agreement” and collectively, the “Note Purchase Agreements”), with the note purchaser or note purchasers referenced therein (each, a “Note Purchaser” and collectively, the “Note Purchasers”), relating to the private placement by the Issuer II to the Note Purchasers of \$400.0 million aggregate principal amount of the Issuer II’s non-recourse Triple II 9.5% Fixed Rate Term Notes due on or before 2035 (the “Non-Recourse 2035 Notes”) expected to be issued under an Indenture by and between Issuer II and US Bank National Association, a national banking association, as initial trustee. 95% of the Non-Recourse 2035 Notes are expected to be sold to the Note Purchasers pursuant to the Note Purchase Agreements. The remaining 5% of the Non-Recourse 2035 Notes (the “Retained Notes”) are expected to be retained by the Company in order to comply with Regulation RR — Credit Risk Retention (17 C.F.R. Part 246) and are expected to be eliminated in the Company’s consolidated financial statements. Issuance of the Non-Recourse 2035 Notes is subject to the satisfaction of certain customary conditions.

The Non-Recourse 2035 Notes are expected to be secured by all of Issuer II’s right, title and interest as a holder of certain membership interests (the “Issuer II Class C Units”) in TRC. The primary source of funds to make payments on the Non-Recourse 2035 Notes are expected to be the 63.75% economic interest of the Issuer II (evidenced by the Issuer II Class C Units) in any future payments made by GSK to TRC under the collaboration agreement, dated as of November 14, 2002, by and between Innoviva and GSK, as amended from time to time (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters) relating to the TRELEGY ELLIPTA program.

The proceeds from the issuance are expected to be used to repay in full the remaining outstanding balance of the Non-Recourse 2033 Notes and/or for other general purposes.

**SUPPLEMENTARY FINANCIAL DATA**  
**(UNAUDITED)**  
**(In thousands, except per share data)**

The following table presents certain unaudited consolidated quarterly financial information for the eight quarters in the periods ended December 31, 2019 and 2018. This information has been prepared on the same basis as the audited consolidated financial statements and includes all adjustments (consisting only of normal recurring adjustments) necessary to present fairly the unaudited quarterly results of operations set forth herein.

	<b>For the Quarters Ended</b>			
	<b>March 31,</b>	<b>June 30,</b>	<b>September 30,</b>	<b>December 31,</b>
<b>2019</b>				
Total revenue	\$ 5,338	\$ 26,150	\$ 12,427	\$ 29,499
Costs and expenses	79,004	68,626	77,628	100,071
Loss from operations	(73,666)	(42,476)	(65,201)	(70,572)
Net loss	(72,580)	(39,838)	(58,431)	(65,606)
Basic and diluted net loss per share	\$ (1.32)	\$ (0.72)	\$ (1.05)	\$ (1.17)
<b>2018</b>				
Total revenue	\$ 8,319	\$ 23,476	\$ 12,838	\$ 15,737
Costs and expenses	73,295	72,180	75,288	78,358
Loss from operations	(64,976)	(48,704)	(62,450)	(62,621)
Net loss	(65,087)	(40,818)	(59,433)	(50,186)
Basic and diluted net loss per share	\$ (1.22)	\$ (0.76)	\$ (1.10)	\$ (0.92)

**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

Not applicable.

**ITEM 9A. CONTROLS AND PROCEDURES**

*Evaluation of Disclosure Controls and Procedures.*

We conducted an evaluation required by paragraph (d) of Rule 13a-15 of the Exchange Act as of December 31, 2019, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined under Rule 13a-15(e) of the Exchange Act), which are controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files under the Exchange Act is recorded, processed, summarized and reported within required time periods. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

*Management's Report on Internal Control over Financial Reporting*

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) of the Exchange Act. In connection with the preparation of this Annual Report, our management, including our Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2019 based on criteria established in *Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission* (2013 framework) (the “COSO criteria”). Based on its assessment, our management concluded that our internal control over financial reporting was effective as of December 31, 2019.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included herein.

*Limitations on the Effectiveness of Controls*

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefit of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within Theravance Biopharma have been detected. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

*Changes in Internal Control over Financial Reporting*

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) identified in connection with the evaluation required by paragraph (d) of Rule 13a-15 of the Exchange Act, which occurred during the fourth quarter of the year ended December 31, 2019 which has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## **Report of Independent Registered Public Accounting Firm**

**To the Shareholders and the Board of Directors of Theravance Biopharma, Inc.**

### **Opinion on Internal Control over Financial Reporting**

We have audited Theravance Biopharma, Inc.'s internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the "COSO criteria"). In our opinion, Theravance Biopharma, Inc. (the "Company") maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive loss, shareholders' equity (deficit) and cash flows, for each of the three years in the period ended December 31, 2019 and related notes and our report dated February 27, 2020 expressed an unqualified opinion thereon.

### **Basis for Opinion**

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

### **Definition and Limitations of Internal Control Over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Redwood City, California  
February 27, 2020

## **ITEM 9B. OTHER INFORMATION**

### *Refinancing of Non-Recourse 2033 Notes*

On February 21, 2020, Theravance Biopharma R&D, Inc., a Cayman Islands exempted company (“Theravance R&D”), a wholly-owned subsidiary of the Company, and Triple Royalty Sub II LLC, a Delaware limited liability company (the “Issuer II”) and wholly-owned subsidiary of Theravance Biopharma R&D, entered into certain note purchase agreements (each, a “Note Purchase Agreement” and collectively, the “Note Purchase Agreements”), with the note purchaser or note purchasers referenced therein (each, a “Note Purchaser” and collectively, the “Note Purchasers”), relating to the private placement by the Issuer II to the Note Purchasers of \$400.0 million aggregate principal amount of the Issuer II’s non-recourse Triple II 9.5% Fixed Rate Term Notes due on or before 2035 (the “Non-Recourse 2035 Notes”) expected to be issued under an Indenture by and between Issuer II and US Bank National Association, a national banking association, as initial trustee. 95% of the Non-Recourse 2035 Notes are expected to be sold to the Note Purchasers pursuant to the Note Purchase Agreements. The remaining 5% of the Non-Recourse 2035 Notes (the “Retained Notes”) are expected to be retained by the Company in order to comply with Regulation RR — Credit Risk Retention (17 C.F.R. Part 246) and are expected to be eliminated in the Company’s consolidated financial statements. Issuance of the Non-Recourse 2035 Notes is subject to the satisfaction of certain customary conditions.

The Non-Recourse 2035 Notes are expected to be secured by all of Issuer II’s right, title and interest as a holder of certain membership interests (the “Issuer II Class C Units”) in TRC. The primary source of funds to make payments on the Non-Recourse 2035 Notes are expected to be the 63.75% economic interest of the Issuer II (evidenced by the Issuer II Class C Units) in any future payments made by GSK to TRC under the collaboration agreement, dated as of November 14, 2002, by and between Innoviva and GSK, as amended from time to time (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC LLC Agreement over the next four fiscal quarters) relating to the TRELEGY ELLIPTA program. This description of the Note Purchase Agreements is qualified in its entirety by reference to the form of Note Purchase Agreement, a copy of which is attached hereto as Exhibit 10.68 and incorporated herein by reference.

The proceeds from the issuance are expected to be used to repay in full the remaining outstanding balance of the Non-Recourse 2033 Notes and/or for other general purposes.

## **PART III**

## **ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

For the information required by this Item, see “Questions and Answers About Procedural Matters”, “Election of Directors”, “Nominees”, “Audit Committee”, “Meetings of the Board of Directors”, “Code of Conduct”, “Executive Officers” and “Section 16(a) Beneficial Ownership Reporting Compliance” in the Proxy Statement to be filed with the SEC, which sections are incorporated herein by reference.

## **ITEM 11. EXECUTIVE COMPENSATION**

For the information required by this Item, see “Director Compensation”, “Executive Compensation” and “Compensation Committee Interlocks and Insider Participation” in the Proxy Statement to be filed with the SEC, which sections are incorporated herein by reference.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

For the information required by this Item, see “Security Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information” in the Proxy Statement to be filed with the SEC, which sections are incorporated herein by reference.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

For the information required by this Item, see “Director Independence” and “Policies and Procedures for Related Party Transactions” in the Proxy Statement to be filed with the SEC, which sections are incorporated herein by reference.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

For the information required by this Item, see “Ratification of the Appointment of Independent Registered Public Accounting Firm” and “Pre-Approval of Audit and Non-Audit Services” in the Proxy Statement to be filed with the SEC, which sections are incorporated herein by reference.

**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) The following documents are filed as part of this Annual Report on Form 10-K:

1. Financial Statements:

The following financial statements and schedules of the Registrant are contained in Part II, Item 8, “Financial Statements and Supplementary Data” of this Annual Report on Form 10-K:

<a href="#">Report of Independent Registered Public Accounting Firm</a>	74
<a href="#">Consolidated Balance Sheets as of December 31, 2019 and 2018</a>	76
<a href="#">Consolidated Statements of Operations for each of the three years in the period ended December 31, 2019</a>	77
<a href="#">Consolidated Statements of Comprehensive Loss for each of the three years in the period ended December 31, 2019</a>	78
<a href="#">Consolidated Statements of Shareholders’ Equity (Deficit) for each of the three years in the period ended December 31, 2019</a>	79
<a href="#">Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2019</a>	80
<a href="#">Notes to Consolidated Financial Statements</a>	81
<a href="#">Supplementary Financial Data (unaudited)</a>	115

2. Financial Statement Schedules:

All schedules have been omitted because of the absence of conditions under which they are required or because the required information, where material, is shown in the financial statements, financial notes or supplementary financial information.

(b) Exhibits required by Item 601 of Regulation S-K

The information required by this Item is set forth on the exhibit index that precedes the signature page of this report.



**Exhibit Index**

Exhibit Number	Description	Incorporated by Reference	
		Form	Filing Date/Period End Date
2.1	<a href="#">Separation and Distribution Agreement by and between Theravance Biopharma, Inc. and Innoviva, Inc., dated June 1, 2014</a>	8-K	June 3, 2014
2.2*	<a href="#">Asset Purchase Agreement, dated as of November 1, 2018, by and among Cumberland Pharmaceuticals Inc. on the one hand, and Theravance Biopharma Ireland Limited and Theravance Biopharma US, Inc. on the other hand.</a>	8-K	November 16, 2018
3.1	<a href="#">Amended and Restated Memorandum and Articles of Association</a>	10-12B	April 30, 2014
4.1	<a href="#">Specimen Share Certificate</a>	10-12B	April 30, 2014
4.2	<a href="#">Registration Rights Agreement, dated March 3, 2014</a>	10-12B	April 8, 2014
4.3	<a href="#">Shelf Rights Plan Resolution</a>	DEF 14A	March 21, 2018
4.4	<a href="#">Sales Agreement between Theravance Biopharma, Inc. and Cowen and Company, LLC dated December 3, 2019</a>	S-3	December 3, 2019
4.5	<a href="#">Indenture, dated as of November 2, 2016, between Theravance Biopharma, Inc. and Wells Fargo Bank, National Association, as trustee</a>	8-K	November 2, 2016
4.6	<a href="#">First Supplemental Indenture, dated as of November 2, 2016, between Theravance Biopharma, Inc. and Wells Fargo Bank, National Association, as trustee</a>	8-K	November 2, 2016
4.7	<a href="#">Form of 3.25% Convertible Senior Note due 2023 (included in Exhibit 4.6)</a>	8-K	November 2, 2016
4.8	<a href="#">Indenture, dated as of November 30, 2018, between Triple Royalty Sub LLC, as issuer, and U.S. Bank National Association, as trustee</a>	8-K	December 3, 2018
4.9	<a href="#">Form of 9.0% PhaRMA<sup>SM</sup> 9% Fixed-Rate Term Notes due 2033 (included in Exhibit 4.8)</a>	8-K	December 3, 2018
4.10	<a href="#">Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934</a>		
10.1	<a href="#">Transition Services Agreement by and between Theravance Biopharma, Inc. and Innoviva, Inc., dated June 2, 2014</a>	8-K	June 3, 2014
10.2	<a href="#">Tax Matters Agreement by and between Theravance Biopharma, Inc. and Innoviva, Inc., dated June 2, 2014</a>	8-K	June 3, 2014
10.3	<a href="#">Employee Matters Agreement by and between Theravance Biopharma, Inc. and Innoviva, Inc., dated June 1, 2014</a>	8-K	June 3, 2014
10.4+	<a href="#">2013 Equity Incentive Plan</a>	S-8	August 18, 2014
10.5+	<a href="#">UK Addendum to the 2013 Equity Incentive Plan</a>	10-Q	August 14, 2014
10.6+	<a href="#">2014 New Employee Equity Incentive Plan</a>	S-8	November 14, 2014
10.7+	<a href="#">2013 Employee Share Purchase Plan, as amended</a>	S-8	Aug. 18, 2014
10.8+	<a href="#">Forms of award agreements under the 2013 Equity Incentive Plan and 2014 New Employee Equity Incentive Plan</a>	10-Q	May 10, 2016
10.9+	<a href="#">Forms of Equity Award Amendment</a>	10-12B	May 7, 2014
10.10+	<a href="#">Form of TFIO Cash Award Amendment</a>	10-12B	May 7, 2014
10.11+	<a href="#">Form of Acknowledgment for Irish Non-Employee Directors</a>	10-K	March 11, 2016
10.12+	<a href="#">Irish Addendum to the 2013 Equity Incentive Plan</a>	10-K	March 11, 2016
10.13+	<a href="#">Irish Addendum to the 2014 New Employee Equity Incentive Plan</a>	10-K	March 11, 2016
10.14+	<a href="#">UK and Irish Addendums to the 2013 Employee Share Purchase Plan</a>	10-K	March 11, 2016
10.15+	<a href="#">Theravance Biopharma, Inc. Performance Incentive Plan</a>	8-K	May 6, 2016

[Table of Contents](#)

Exhibit Number	Description	Incorporated by Reference	
		Form	Filing Date/Period End Date
10.16+	<a href="#">Form of Notice of Option Grant and Option Agreement under the Company's Performance Incentive Plan</a>	10-Q	November 8, 2017
10.17+	<a href="#">Form of Notice of Performance Restricted Share Unit Award and Restricted Share Unit Agreement under the Company's Performance Incentive Plan</a>	10-Q	November 8, 2017
10.18+	<a href="#">Change in Control Severance Plan</a>	10-12B	April 8, 2014
10.19+	<a href="#">Cash Bonus Program</a>	10-12B	November 22, 2013
10.20+	<a href="#">Form of Indemnity Agreement</a>	10-12B	April 30, 2014
10.21	<a href="#">Amended and Restated Lease Agreement, 951 Gateway Boulevard, between Innoviva, Inc. and HMS Gateway Office L.P., dated January 1, 2001</a>	10-12B	August 1, 2013
10.22	<a href="#">First Amendment to Lease for 951 Gateway Boulevard effective as of June 1, 2010 between Innoviva, Inc. and ARE-901/951 Gateway Boulevard, LLC</a>	10-12B	August 1, 2013
10.23	<a href="#">Lease Agreement, 901 Gateway Boulevard, between Innoviva, Inc. and HMS Gateway Office L.P., dated January 1, 2001</a>	10-12B	August 1, 2013
10.24	<a href="#">First Amendment to Lease for 901 Gateway Boulevard effective as of June 1, 2010 between Innoviva, Inc. and ARE-901/951 Gateway Boulevard, LLC</a>	10-12B	August 1, 2013
10.25	<a href="#">Consent to Assignment by and among ARE-901/951 Gateway Boulevard, LLC, Innoviva, Inc. and Theravance Biopharma, Inc. and Assignment and Assumption of Lease for 901 Gateway Blvd.</a>	10-Q	August 14, 2014
10.26	<a href="#">Consent to Assignment by and among ARE-901/951 Gateway Boulevard, LLC, Innoviva, Inc. and Theravance Biopharma, Inc. and Assignment and Assumption of Lease for 951 Gateway Blvd.</a>	10-Q	August 14, 2014
10.27	<a href="#">Theravance Respiratory Company, LLC Limited Liability Company Agreement, dated May 31, 2014</a>	8-K	June 3, 2014
10.28*	<a href="#">Technology Transfer and Supply Agreement, dated as of May 22, 2012 between Innoviva, Inc. and Hospira Worldwide, Inc.</a>	10-12B	May 7, 2014
10.29*	<a href="#">First Amendment to the Technology Transfer and Supply Agreement by and between Innoviva, Inc. and Hospira Worldwide, Inc., dated May 16, 2013</a>	10-Q	November 9, 2016
10.30*	<a href="#">Second Amendment to the Technology Transfer and Supply Agreement by and between Theravance Biopharma Antibiotics, Inc. and Hospira Worldwide, Inc., dated October 17, 2014</a>	10-Q	November 9, 2016
10.31*	<a href="#">Third Amendment to the Technology Transfer and Supply Agreement by and between Theravance Biopharma Ireland Limited and Hospira Worldwide, Inc., dated April 14, 2016</a>	10-Q	November 9, 2016
10.32*	<a href="#">Fourth Amendment to the Technology Transfer and Supply Agreement by and between Theravance Biopharma Ireland Limited and Pfizer CentreOne group of Pfizer, Inc., dated September 29, 2016</a>	10-Q	November 9, 2016
10.33	<a href="#">Amendment No. 1 to the License, Development, and Commercialization Agreement by and between Theravance Biopharma Ireland Limited and Clinigen Group PLC dated August 4, 2016</a>	10-Q	August 9, 2016
10.34	<a href="#">License Agreement with Janssen Pharmaceutica, dated as of May 14, 2002</a>	10-Q	August 14, 2014
10.35	<a href="#">Collaboration Agreement between Innoviva, Inc. and Glaxo Group Limited, dated November 14, 2002 <sup>(1)</sup></a>		
10.36	<a href="#">Strategic Alliance Agreement by and between Innoviva, Inc. and Glaxo Group Limited, dated March 30, 2004 <sup>(2)</sup></a>		
10.37	<a href="#">Amendment to Strategic Alliance Agreement by and between Innoviva, Inc. and Glaxo Group Limited, dated October 3, 2011 <sup>(3)</sup></a>		
10.38	<a href="#">Collaboration Agreement Amendment by and between Innoviva, Inc. and Glaxo Group Limited dated, March 3, 2014 <sup>(4)</sup></a>		

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Exhibit Number	Description	Incorporated by Reference	
		Form	Filing Date/Period End Date
10.39	<a href="#">Strategic Alliance Agreement Amendment by and between Innoviva, Inc. and Glaxo Group Limited dated, March 3, 2014</a> <sup>(4)</sup>		
10.40	<a href="#">Master Agreement by and between Innoviva, Inc., Theravance Biopharma, Inc. and Glaxo Group Limited, dated March 3, 2014</a> <sup>(4)</sup>		
10.41	<a href="#">Extension Agreement by and between the Company and Glaxo Group Limited, dated March 3, 2014</a>	10-12B	April 8, 2014
10.42+	<a href="#">Amended Offer Letter with Rick E Winningham dated August 5, 2014</a>		November 12, 2014
10.43+	<a href="#">Offer Letter with Frank Pasqualone May 12, 2014</a>	10-Q	August 14, 2014
10.44+	<a href="#">Offer Letter with Brett K. Haumann dated May 12, 2014</a>	10-Q	August 14, 2014
10.45+	<a href="#">Offer Letter with Renee D. Gala dated May 12, 2014</a>		November 12, 2014
10.46+	<a href="#">Offer Letter with Brad Shafer dated August 20, 2014</a>		November 12, 2014
10.47+	<a href="#">Offer Letter with Sharath Hegde May 12, 2014</a>	10-Q	May 10, 2016
10.48+	<a href="#">Offer Letter with Ken Pitzer September 15, 2014</a>	10-Q	May 10, 2016
10.49+	<a href="#">Offer Letter with Phil Worboys September 9, 2014</a>	10-Q	May 10, 2016
10.50+	<a href="#">Offer Letter with Shehnaaz Suliman dated May 31, 2017</a>	10-Q	November 8, 2017
10.51*	<a href="#">Development and Commercialization Agreement by and between Theravance Biopharma R&amp;D, Inc. and Mylan Ireland Limited, dated January 30, 2015</a>	8-K/A	April 24, 2015
10.52*	<a href="#">License and Collaboration Agreement by and between Theravance Biopharma Ireland Limited and Millennium Pharmaceuticals, Inc. dated June 8, 2016</a>	10-Q	August 9, 2016
10.53	<a href="#">Form of Note Purchase Agreement, dated November 30, 2018, among Theravance Biopharma R&amp;D, Inc., Triple Royalty Sub LLC, and the note purchasers</a>	8-K	December 3, 2018
10.54	<a href="#">Sale and Contribution Agreement, dated November 30, 2018, among Theravance Biopharma R&amp;D, Inc., as the transferor, Triple Royalty Sub LLC, as the transferee, and Theravance Biopharma, Inc.</a>	8-K	December 3, 2018
10.55	<a href="#">Pledge and Security Agreement, dated November 30, 2018, between Theravance Biopharma R&amp;D, Inc., as the pledgor, and U.S. Bank National Association, as the pledgee</a>	8-K	December 3, 2018
10.56	<a href="#">Servicing Agreement, dated November 30, 2018, between Triple Royalty Sub LLC, as the issuer and Theravance Biopharma R&amp;D, Inc., as the servicer</a>	8-K	December 3, 2018
10.57	<a href="#">Account Control Agreement, dated November 30, 2018, among Triple Royalty Sub LLC, as the issuer, Theravance Biopharma R&amp;D, Inc., as the servicer, U.S. Bank National Association, as the secured party, and U.S. Bank National Association, as the financial institution</a>	8-K	December 3, 2018
10.58	<a href="#">Amended and Restated Limited Liability Company Agreement of Triple Royalty Sub LLC, dated November 30, 2018, by Theravance Biopharma R&amp;D, Inc., as the initial sole equity member, including Annex A — Rules of Construction and Defined Terms, dated November 30, 2018</a>	8-K	December 3, 2018
10.59*	<a href="#">License and Collaboration Agreement by and between Theravance Biopharma Ireland Limited and Janssen Biotech, Inc. dated as of February 5, 2018</a>	10-Q	May 9, 2018
10.60+	<a href="#">Memorandum to Brett K. Haumann regarding Transfer to Theravance Biopharma US, Inc., executed April 5, 2018</a>	10-Q	August 2, 2018
10.61	<a href="#">Amendments to Lease for 901 Gateway Boulevard between Theravance Biopharma US, Inc. and ARE-901/951 Gateway Boulevard, LLC</a>	10-Q	August 2, 2018
10.62	<a href="#">Amendments to Lease for 951 Gateway Boulevard between Theravance Biopharma US, Inc. and ARE-901/951 Gateway Boulevard, LLC</a>	10-Q	August 2, 2018

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Exhibit Number	Description	Incorporated by Reference	
		Form	Filing Date/Period End Date
10.63	<a href="#">Consulting Agreement between Theravance Biopharma US, Inc. and Renee D. Gala, dated January 9, 2019</a>	8-K/A	January 3, 2019
10.64	<a href="#">Agreement and General Release between Theravance Biopharma US, Inc. and Shehnaaz Suliman, dated March 1, 2019</a>	10-Q	May 10, 2019
10.65	<a href="#">Offer Letter with Andrew Hindman dated May 30, 2019</a>	10-Q	August 5, 2019
10.66*	<a href="#">Amendment No. 1 to the Development and Commercialization Agreement by and between Theravance Biopharma Ireland Limited and Mylan Ireland Limited, dated June 12, 2019</a>	10-Q	August 5, 2019
10.67**	<a href="#">License Agreement by and between Theravance Biopharma Ireland Limited and Pfizer Inc. dated December 21, 2019</a>		
10.68	<a href="#">Form of Note Purchase Agreement, dated February 21, 2020 by and among Theravance Biopharma R&amp;D, Inc., Triple Royalty Sub II LLC, and the Purchasers</a>		
21.1	<a href="#">Subsidiaries of Theravance Biopharma, Inc.</a>		
23.1	<a href="#">Consent of Independent Registered Public Accounting Firm</a>		
24.1	<a href="#">Power of Attorney (see signature page to this Annual Report on Form 10-K)</a>		
31.1	<a href="#">Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934</a>		
31.2	<a href="#">Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934</a>		
32	<a href="#">Certifications Pursuant to 18 U.S.C. Section 1350</a>		
101	The following materials from Registrant’s Annual Report on Form 10-K for the year ended December 31, 2019, formatted in Inline Extensible Business Reporting Language (iXBRL) includes: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Loss, (iv) Consolidated Statements of Shareholders’ Equity (Deficit), (v) Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements.		
104	The cover page from the Company’s Annual Report on Form 10-K for the year ended December 31, 2019, formatted in Inline XBRL.		

- + Management contract or compensatory plan or arrangement required to be filed pursuant to Item 15(b) of Form 10-K.
- \* Portions of this exhibit have been omitted and the omitted information has been filed separately with the Securities and Exchange Commission pursuant to an order granting confidential treatment.
- \*\* Portions of this exhibit have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K.
- (1) Incorporated by reference to an exhibit filed with the quarterly report on Form 10-Q of Innoviva, Inc., filed with the Securities and Exchange Commission on August 7, 2014.
- (2) Incorporated by reference to an exhibit filed with the annual report on Form 10-K of Innoviva, Inc., filed with the Commission on March 3, 2014.
- (3) Incorporated by reference to an exhibit filed with the annual report on Form 10-K of Innoviva, Inc., filed with the Commission on February 27, 2012.
- (4) Incorporated by reference to an exhibit filed with the current report on Form 8-K/A of Innoviva, Inc., filed with the Commission on March 6, 2014.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

THERAVANCE BIOPHARMA, INC.

Date: February 27, 2020

By:                                 /s/ RICK E WINNINGHAM  
Rick E Winningham  
*Chief Executive Officer*

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Rick E Winningham as their true and lawful attorney-in-fact and agent, each with full power of substitution and resubstitution, for such person and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to the annual report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>                                /s/ RICK E WINNINGHAM</u> Rick E Winningham	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	February 27, 2020
<u>                                /s/ ANDREW HINDMAN</u> Andrew Hindman	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 27, 2020
<u>                                /s/ LAURIE SMALDONE ALSUP, MD</u> Laurie Smaldone Alsup, MD	Director	February 27, 2020
<u>                                /s/ ERAN BROSHY</u> Eran Broshy	Director	February 27, 2020
<u>                                /s/ ROBERT V. GUNDERSON, JR.</u> Robert V. Gunderson, Jr.	Director	February 27, 2020
<u>                                /s/ DONAL O'CONNOR</u> Donal O'Connor	Director	February 27, 2020
<u>                                /s/ BURTON G. MALKIEL, PH.D.</u> Burton G. Malkiel, Ph.D.	Director	February 27, 2020

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<u>Signature</u>	<u>Title</u>	<u>Date</u>
<hr/> <i>/s/ DEAN J. MITCHELL</i> Dean J. Mitchell	Director	February 27, 2020
<hr/> <i>/s/ SUSAN M. MOLINEAUX, PH.D.</i> Susan M. Molineaux, Ph.D.	Director	February 27, 2020
<hr/> <i>/s/ PETER S. RINGROSE, PH.D.</i> Peter S. Ringrose, Ph.D.	Director	February 27, 2020
<hr/> <i>/s/ GEORGE M. WHITESIDES, PH.D.</i> George M. Whitesides, Ph.D.	Director	February 27, 2020
<hr/> <i>/s/ WILLIAM D. YOUNG</i> William D. Young	Director	February 27, 2020

**DESCRIPTION OF THE REGISTRANT'S SECURITIES  
REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES  
EXCHANGE ACT OF 1934**

*Theravance Biopharma, Inc. (“we,” “our,” “us,” or the “Company”) has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our ordinary shares. The following description summarizes the most important terms of our share capital. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our amended and restated memorandum and articles of association and form of rights agreement, each previously filed with the SEC and incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.10 is a part, and the applicable provisions of the Companies Law, 2016 Revision, as amended (the “Companies Law”).*

**DESCRIPTION OF SHARE CAPITAL**

**General**

We are authorized to issue 200,000,000 ordinary shares, par value \$0.00001 per share, and 230,000 preferred shares, par value \$0.00001 per share.

Our ordinary shares are listed on the Nasdaq Global Market under the symbol “TBPH.” The transfer agent and registrar for our ordinary shares is Computershare, Stock Transfer Administration, 2335 Alaska Avenue, El Segundo CA 90245.

**Meetings of Shareholders**

Subject to our regulatory requirements, an annual general meeting and any extraordinary general meeting shall be called by not less than ten days’ nor more than 60 days’ notice. Notice of every general meeting will be given to all of our shareholders, our directors and our principal external auditors. Extraordinary general meetings may be called only by the chairman of our board of directors, the chief executive officer or a majority of our board of directors, and may not be called by any other person.

Alternatively, subject to applicable regulatory requirements, a meeting will be deemed to have been duly called if it is so agreed (i) in the case of a meeting called as an annual general meeting, by all of our shareholders (or their proxies) entitled to attend and vote at the meeting, or (ii) in the case of an extraordinary meeting, by a majority in number of our shareholders (or their proxies) having a right to attend and vote at the meeting, being a majority together holding not less than 95% of the voting shares.

At any general meeting, shareholders entitled to vote and present in person or by proxy that represent not less than a majority of our issued and outstanding voting shares will constitute a quorum. No business may be transacted at any general meeting unless a quorum is present at the commencement of business.

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A corporation being a shareholder shall be deemed for the purpose of our amended and restated memorandum and articles of association to be present in person if represented by its duly authorized representative being the person appointed by resolution of the directors or other governing body of such corporation to act as its representative at the relevant general meeting or at any relevant general meeting of any class of our shareholders. Such duly authorized representative shall be entitled to exercise the same powers on behalf of the corporation which he represents as that corporation could exercise if it were an individual shareholder.

The quorum for a separate general meeting of the holders of a separate class of shares is described in “Modification of Rights” below.

### **Voting Rights Attaching to the Shares**

Subject to any special rights or restrictions as to voting then attached to any shares, at any general meeting every shareholder who is present in person or by proxy (or, in the case of a shareholder being a corporation, by its duly authorized representative) shall have one vote per ordinary share. The holders of preferred shares shall have limited voting rights as set out in our amended and restated memorandum and articles of association.

No shareholder shall be entitled to vote or be deemed to be part of a quorum, in respect of any share, unless such shareholder is registered as our shareholder at the applicable record date for that meeting and all calls or installments due by such shareholder to us, if any, have been paid. If a clearing house or depository (or its nominee(s)) is our shareholder, it may authorize such person or persons as it thinks fit to act as its representative(s) at any meeting or at any meeting of any class of shareholders, provided that, if more than one person is so authorized, the authorization shall specify the number and class of shares in respect of which each such person is so authorized. A person authorized pursuant to this provision is entitled to exercise the same powers on behalf of the recognized clearing house or depository (or its nominee(s)) as if such person was the registered holder of our shares held by that clearing house or depository (or its nominee(s)), including the right to vote individually on a show of hands.

While there is nothing under the laws of the Cayman Islands that specifically prohibits or restricts the creation of cumulative voting rights for the election of our directors, unlike the requirement under Delaware law that cumulative voting for the election of directors is permitted only if expressly authorized in the certificate of incorporation, it is not a concept that is accepted as a common practice in the Cayman Islands, and we have made no provisions in our amended and restated memorandum and articles of association to allow cumulative voting for such elections.

### **Protection of Minority Shareholders**

The Grand Court of the Cayman Islands may, on the application of shareholders holding not less than one fifth of our shares in issue, appoint an inspector to examine our affairs and report thereon in a manner as the Grand Court shall direct.

Any shareholder may petition the Grand Court of the Cayman Islands which may make a winding up order, if the court is of the opinion that it is just and equitable that we should be wound up.

Claims against us by our shareholders must, as a general rule, be based on the general laws of contract or tort applicable in the Cayman Islands or their individual rights as shareholders as established by our amended and restated memorandum and articles of association.

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Our Cayman Islands counsel, Maples and Calder, is not aware of any reported class action having been brought in a Cayman Islands court. Derivative actions have been brought in the Cayman Islands courts, and the Cayman Islands courts have confirmed the availability for such actions. In most cases, the company will be the proper plaintiff in any claim based on a breach of duty owed to it, and a claim against (for example) the company's officers or directors usually may not be brought by a shareholder. However, based on English authorities, which would in all likelihood be of persuasive authority and be applied by a court in the Cayman Islands, exceptions to the foregoing principle apply in circumstances in which:

- a company is acting, or proposing to act, illegally or beyond the scope of its authority;
- the act complained of, although not beyond the scope of the authority, could be effected if duly authorized by more than the number of votes which have actually been obtained; or
- those who control the company are perpetrating a "fraud on the minority."

**A shareholder may have a direct right of action against the company where the individual rights of that shareholder have been infringed or are about to be infringed.**

### **Pre-emption Rights**

There are no pre-emption rights applicable to the issue of new shares under either Cayman Islands law or our amended and restated memorandum and articles of association.

### **Liquidation Rights**

Subject to any special rights, privileges or restrictions as to the distribution of available surplus assets on liquidation applicable to any class or classes of shares (i) if we are wound up and the assets available for distribution among our shareholders are more than sufficient to repay the whole of the capital paid up at the commencement of the winding up, the excess shall be distributed *pari passu* among our shareholders in proportion to the amount paid up at the commencement of the winding up on the shares held by them, respectively, and (ii) if we are wound up and the assets available for distribution among our shareholders as such are insufficient to repay the whole of the paid-up capital, those assets shall be distributed so that, as nearly as may be, the losses shall be borne by our shareholders in proportion to the capital paid up at the commencement of the winding up on the shares held by them, respectively.

If we are wound up, the liquidator may with the sanction of an ordinary resolution and any other sanction required by the Companies Law, divide among our shareholders in specie or kind the whole or any part of our assets (whether they shall consist of assets of the same kind or not) and may, for such purpose, set such value as the liquidator deems fair upon any assets to be divided and may determine how such division shall be carried out as between the shareholders or different classes of shareholders. The liquidator may also, with the sanction of an ordinary resolution, vest any part of these assets in trustees upon such trusts for the benefit of our shareholders as the liquidator shall think fit, but so that no shareholder will be compelled to accept any assets, shares or other securities upon which there is a liability.

### **Modification of Rights**

Except with respect to share capital (as described below), alterations to our amended and restated memorandum and articles of association may only be made by special resolution of no less than two-thirds of votes cast at a meeting of our shareholders at which a quorum is present.

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Subject to the Companies Law and our amended and restated memorandum and articles of association, all or any of the special rights attached to shares of any class (unless otherwise provided for by the terms of issue of the shares of that class) may be varied, modified or abrogated with the sanction of a resolution passed by a majority of not less than two-thirds of the votes cast passed at a separate meeting of the holders of the shares of that class at which a quorum is present. The provisions of our amended and restated memorandum and articles of association relating to general meetings shall apply similarly to every such separate general meeting, but so that the quorum for the purposes of any such separate general meeting or at its adjourned meeting shall be a person or persons together holding (or represented by proxy) not less than a majority in par value of the issued shares of that class, every holder of shares of the class shall be entitled on a poll to one vote for every such share held by such holder and that any holder of shares of that class present in person or by proxy may demand a poll.

The special rights conferred upon the holders of any class of shares shall not, unless otherwise expressly provided in the rights attaching to or the terms of issue of such shares, be deemed to be varied by the creation or issue of further shares that rank higher in priority or with the same rights and privileges.

### **Alteration of Capital**

We may from time to time by ordinary resolution:

- increase our capital by such sum, to be divided into shares of such amounts, as the resolution shall prescribe;
- consolidate and divide all or any of our share capital into shares of larger amount than our existing shares;
- cancel any shares which at the date of the passing of the resolution have not been taken or agreed to be taken by any person, and diminish the amount of our share capital by the amount of the shares so cancelled, subject to the provisions of the Companies Law;
- subdivide our shares or any of them into shares of a smaller amount than is fixed by our amended and restated memorandum and articles of association, subject to the Companies Law; and
- divide shares into several classes.

We may, by special resolution, subject to any confirmation or consent required by the Companies Law, reduce our share capital or any capital redemption reserve in any manner authorized by law.

### **Transfer of Shares**

Subject to any applicable restrictions set forth in our amended and restated memorandum and articles of association, any of our shareholders may transfer all or a portion of their shares by an instrument of transfer in the usual or common form or in a form prescribed by the Nasdaq Global Market or in any other form which our directors may approve. Our directors may, in their absolute discretion, decline to register any transfer of shares, subject to any applicable requirements imposed from time to time by the Securities and Exchange Commission, the Nasdaq Global Market or any recognized stock exchange on which our securities are listed. If our directors refuse to register a transfer, they shall, within two months after the date on which the instrument of transfer was lodged, send to each of the transferor and the transferee notice of such refusal.

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The registration of transfers may be suspended and the register closed at such times and for such periods as our directors may from time to time determine; provided, however, that registration shall not be suspended for more than forty-five days in any year.

## **Share Repurchase**

We are empowered by the Companies Law and our amended and restated memorandum and articles of association to purchase our own shares, subject to certain restrictions. Our directors may only exercise this power on our behalf, subject to the Companies Law, our amended and restated memorandum and articles of association and to any applicable requirements imposed from time to time by the Securities and Exchange Commission, the Nasdaq Global Market or any recognized stock exchange on which our securities are listed.

## **Dividends**

Subject to the Companies Law, we may declare dividends in any currency to be paid to our shareholders but no dividend shall be declared in excess of the amount recommended by our directors. Dividends may be declared and paid out of our profits, realized or unrealized, or from any reserve set aside from profits that our directors determine is no longer needed. Our board of directors may also declare and pay dividends out of the share premium account or any other fund or account which can be authorized for this purpose in accordance with the Companies Law.

## **Rights Agreement**

Our shareholders approved a shareholder rights plan (the “Rights Plan”) and authorized our board of directors to adopt and put into effect (“implement”) the Rights Plan in the future if and when our board of directors deems appropriate and in the best interests of the Company. Our shareholders have also authorized our board of directors to determine the purchase price of the rights under the Rights Plan, select the rights agent under the Rights Plan, and make such changes to the terms of the Rights Plan as the board of directors deems appropriate and in the best interests of the Company.

If the Rights Plan is implemented, we will issue one purchase right in respect of each ordinary share issued and outstanding as of a record date determined by our board of directors. We will also issue a purchase right to each ordinary share issued after the record date, but before the distribution date of the rights or the termination of the Rights Plan, whichever is first. Each purchase right would entitle its holder, under certain circumstances, to purchase from us one one-thousandth of a share of Series A junior participating preferred at a price to be determined by our board of directors at the time of implementing the Rights Plan, subject to adjustment. The purpose of our Rights Plan is to:

- give our board of directors the opportunity to negotiate with any persons seeking to obtain control of us;
- deter acquisitions of voting control of us without assurance of fair and equal treatment of all of our shareholders; and
- prevent a person from acquiring in the market a sufficient amount of voting power over us to be in a position to block an action sought to be taken by our shareholders.

The exercise of the rights that may be issued under our Rights Plan would cause substantial dilution to a person attempting to acquire us on terms not approved by our board of directors, and therefore would significantly increase the price that such person would have to pay to complete the acquisition. Our

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Rights Plan may deter a potential acquisition or tender offer. Until a “distribution date” occurs, the rights will:

- not be exercisable;
- be represented in the same book-entry form or by the same certificate that represents the shares with which the rights are associated; and
- trade together with those shares.

The rights will expire on a date designated by our board of directors at the time the Rights Plan is implemented, unless such date is advanced or extended or unless earlier redeemed or exchanged by us. Following a “distribution date,” the rights would become exercisable and we would issue separate certificates representing the rights, which would trade separately from our ordinary shares. A “distribution date” would occur upon the earlier of:

- ten business days after a public announcement that the person has become an “acquiring person;” or
- ten business days (or such later date as may be determined by action of the board of directors prior to such time as any person or group of affiliated persons becomes an “acquiring person”) after the commencement of, or announcement of an intention to make, a tender offer or exchange offer the consummation of which would result in the beneficial ownership by a person or group of 19.9% or more of the outstanding ordinary shares.

A holder of rights will not, as such, have any rights as a shareholder, including the right to vote or receive dividends.

Under our form of rights agreement (as amended from time to time, the “Rights Agreement”), a person becomes an “acquiring person” if the person, alone or together with a group, acquires beneficial ownership of 19.9% or more of our outstanding ordinary shares. In addition, an “acquiring person” shall not include us, any of our subsidiaries, or any of our employee benefit plans or any person or entity acting pursuant to such employee benefit plans. Our Rights Agreement also contains provisions designed to prevent the inadvertent triggering of the rights by institutional or certain other shareholders.

If any person becomes an acquiring person, each holder of a right, other than the acquiring person, will be entitled to purchase, at the purchase price determined by our board of directors, a number of our ordinary shares having a market value of two times the purchase price. If, following a public announcement that a person has become an acquiring person:

- we merge or enter into any similar business combination transaction and we are not the surviving corporation; or
- 50% or more of our assets, cash flow or earning power is sold or transferred,

each holder of a right, other than the acquiring person, will be entitled to purchase a number of ordinary shares of the surviving entity having a market value of two times the purchase price.

After a person becomes an acquiring person, but prior to such person acquiring 50% of our outstanding ordinary shares, our board of directors may exchange each right, other than rights owned by the acquiring person, for

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- one ordinary share;
- one one-thousandth of a share of our Series A junior preferred share; or
- a fractional share of another series of preferred share having equivalent value.

At any time until a person has become an acquiring person, our board of directors may redeem all of the rights at a redemption price of \$0.01 per right or such other price as our board of directors shall determine at the time of implementing the Rights Plan. The redemption price shall be payable, at the option of our board of directors, in cash, ordinary shares or such other form of consideration as our board of directors deems appropriate. On the redemption date, the rights will expire and the only entitlement of the holders of rights will be to receive the redemption price.

For so long as the rights are redeemable, our board of directors may amend any provisions in the Rights Agreement without shareholder consent. After the rights are no longer redeemable, our board of directors may only amend the rights agreement without shareholder consent if such amendment would not adversely affect the interests of the holders of rights. Despite the foregoing, at no time may the redemption price of the rights be amended or changed.

The adoption of the Rights Plan and the distribution of the rights should not be taxable to our shareholders or us. Our shareholders may recognize taxable income when the rights become exercisable in accordance with the Rights agreement.

### **Differences in Corporate Law**

The Companies Law is modeled after similar laws in the United Kingdom but does not follow recent changes in United Kingdom laws. In addition, the Companies Law differs from laws applicable to U.S. corporations and their shareholders. Set forth below is a summary of the significant differences between the provisions of the Companies Law applicable to us and the laws applicable to companies incorporated in the United States and their shareholders.

### ***Mergers and Similar Arrangements***

The Companies Law permits mergers and consolidations between Cayman Islands companies and between Cayman Islands companies and non-Cayman Islands companies.

For these purposes, (a) “merger” means the merging of two or more constituent companies and the vesting of their undertaking, property and liabilities in one of such companies as the surviving company and (b) a “consolidation” means the combination of two or more constituent companies into a consolidated company and the vesting of the undertaking, property and liabilities of such companies to the consolidated company. In order to effect such a merger or consolidation, the directors of each constituent company must approve a written plan of merger or consolidation, which must then be authorized by a special resolution of the shareholders of each constituent company and such other authorization, if any, as may be specified in such constituent company’s articles of association. The plan must be filed with the Registrar of Companies together with a declaration as to the solvency of the consolidated or surviving company, a list of the assets and liabilities of each constituent company and an undertaking that a copy of the certificate of merger or consolidation will be given to the members and creditors of each constituent company and published in the Cayman Islands Gazette.

Dissenting shareholders have the right to be paid the fair value of their shares (which, if not agreed between the parties, will be determined by the Cayman Islands court) if they follow the required

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procedures, subject to certain exceptions. Court approval is not required for a merger or consolidation which is effected in compliance with these statutory procedures.

In addition, there are statutory provisions that facilitate the reconstruction and amalgamation of companies, provided that the arrangement in question is approved by a majority in number representing 75% in value of each class of shareholders and creditors with whom the arrangement is to be made that are present and voting either in person or by proxy at a meeting, or meetings convened for that purpose. The convening of the meetings and subsequently the arrangement must be sanctioned by the Grand Court of the Cayman Islands. While a dissenting shareholder would have the right to express to the court the view that the transaction should not be approved, the court can be expected to approve the arrangement if it satisfies itself that:

- we are not proposing to act illegally or ultra vires and the statutory provisions as to majority vote have been complied with;
- the shareholders have been fairly represented at the meeting in question;
- the arrangement is such as a businessman would reasonably approve; and
- the arrangement is not one that would more properly be sanctioned under some other provision of the Companies Law or that would amount to a “fraud on the minority.”

When a takeover offer is made and accepted by holders of at least 90% of the shares within four months, the offeror may, within a two-month period, require the holders of the remaining shares to transfer such shares on the terms of the offer. An objection may be made to the Grand Court of the Cayman Islands but is unlikely to succeed unless there is evidence of fraud, bad faith or collusion.

If the arrangement and reconstruction are thus approved, any dissenting shareholders would have no rights comparable to appraisal rights, which might otherwise ordinarily be available to dissenting shareholders of U.S. corporations and allow such dissenting shareholders to receive payment in cash for the judicially determined value of their shares.

### ***Shareholders’ Suits***

We are not aware of any reported class action or derivative action having been brought in a Cayman Islands court. However, a class action suit could nonetheless be brought in a U.S. court pursuant to an alleged violation of U.S. securities laws and regulations. Our Cayman Islands counsel, Maples and Calder, is not aware of any reported class action having been brought in a Cayman Islands court. Derivative actions have been brought in the Cayman Islands courts, and the Cayman Islands courts have confirmed the availability for such actions. In most cases, the company will be the proper plaintiff in any claim based on a breach of duty owed to it, and a claim against (for example) the company’s officers or directors usually may not be brought by a shareholder. However, based on English authorities, which would in all likelihood be of persuasive authority and be applied by a court in the Cayman Islands, exceptions to the foregoing principle apply in circumstances in which:

- a company is acting, or proposing to act, illegally or beyond the scope of its authority;
  - the act complained of, although not beyond the scope of the authority, could be effected if duly authorized by more than the number of votes which have actually been obtained; or
  - those who control the company are perpetrating a “fraud on the minority.”
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**A shareholder may have a direct right of action against the company where the individual rights of that shareholder have been infringed or are about to be infringed.**

## **Corporate Governance**

Cayman Islands laws do not restrict transactions with directors, requiring only that directors exercise a duty of care and owe fiduciary duties to the companies for which they serve. Under our amended and restated memorandum and articles of association, subject to any separate requirement for audit committee approval under the applicable rules of the Nasdaq Global Market or unless disqualified by the chairman of the relevant board meeting, so long as a director discloses the nature of his interest in any contract or arrangement which he is interested in, such a director may vote in respect of any contract or proposed contract or arrangement in which such director is interested and may be counted in the quorum at such meeting.

## **Board of Directors**

We are managed by our board of directors. Our amended and restated memorandum and articles of association will provide that the number of our directors will be fixed from time to time by our board of directors but may not consist of less than three or more than 15 directors. Our board of directors is currently comprised of eleven members who are divided into three classes with staggered three-year terms. Each director holds office until the expiration of his or her term in accordance with the terms of our amended and restated memorandum and articles of association, until his or her successor has been duly elected and qualified or until his or her death, resignation or removal. The classification of our board of directors may have the effect of delaying or preventing changes in our control or management. Our directors may only be removed for cause by special resolution passed by not less than two-thirds of votes cast by our shareholders. Any vacancies on our board of directors or additions to the existing board of directors can only be filled by the affirmative vote of a simple majority of the remaining directors, although this may be less than a quorum. Any additional directorships resulting from an increase in the authorized number of directors would be distributed among the three classes so that, as nearly as possible, each class would consist of one-third of the authorized number of directors. Any director so appointed by the board of directors shall hold office only for the remaining term of the class of director which he or she replaces and shall then be eligible for re-election. Our directors are not required to hold any of our shares to be qualified to serve on our board of directors.

Meetings of our board of directors may be convened at any time deemed necessary by our secretary on request of the chairman of our board of directors, our chief executive officer, if not the chairman of our board of directors, or a majority of our board of directors. Advance notice of a meeting is not required if each director entitled to attend consents to the holding of such meeting.

## **Issuance of Additional Ordinary Shares or Preferred Shares**

Our amended and restated memorandum and articles of association authorize our board of directors to issue additional ordinary shares from time to time as our board of directors shall determine, to the extent available, authorized but unissued shares. The issuance of additional ordinary shares may, subject to applicable law, be used as an anti-takeover device without further action on the part of our shareholders. Such issuance may dilute the voting power of existing holders of ordinary shares.

Our board of directors may authorize by resolution or resolutions from time to time the issuance of one or more classes or series of preferred shares and to fix the designations, powers, preferences and relative, participating, optional and other rights, if any, and the qualifications, limitations and restrictions thereof, if any, including, without limitation, the number of shares constituting each such class or series, dividend rights, conversion rights, redemption privileges, voting powers, full or limited or no voting powers, and liquidation preferences, and to increase or decrease the size of any such class or series (but not

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below the number of shares of any class or series of preferred shares then outstanding) to the extent permitted by applicable law. The resolution or resolutions providing for the establishment of any class or series of preferred shares may, to the extent permitted by applicable law, provide that such class or series shall be superior to, rank equally with or be junior to the preferred shares of any other class or series. Additionally, the issuance of preference shares may have the effect of decreasing the market price of the ordinary shares and may adversely affect the voting and other rights of the holders of ordinary shares.

Our board of directors may issue series of preferred shares without action by our shareholders to the extent authorized but unissued. Accordingly, the issuance of preferred shares may adversely affect the enjoyment of the rights of the holders of our ordinary shares. In addition, the issuance of preferred shares may be used as an anti-takeover device without further action on the part of our shareholders, subject to applicable law. Issuance of preferred shares may dilute the voting power of holders of ordinary shares.

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**CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS EXHIBIT BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [\*\*\*\*\*] INDICATES THAT INFORMATION HAS BEEN OMITTED.**

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**LICENSE AGREEMENT**

by and between

**PFIZER INC.**

and

**THERAVANCE BIOPHARMA IRELAND LIMITED**

**December 21, 2019**

[\*\*\*\*\*] Certain identified information denoted with an asterisk have been omitted from this exhibit because it is not material and would likely cause competitive harm to the Registrant if publicly disclosed.

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[\*\*\*\*\*] Certain identified information denoted with an asterisk have been omitted from this exhibit because it is not material and would likely cause competitive harm to the Registrant if publicly disclosed.

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**EXHIBITS**

Exhibit A          Pfizer's Anti-Bribery and Anti-Corruption Practices

**SCHEDULES**

Schedule 1.14      Compounds  
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**LICENSE AGREEMENT**

This License Agreement (the "Agreement") is entered into as of December 21, 2019 (the "Effective Date"), by and between Pfizer Inc. a corporation organized and existing under the laws of Delaware and having a principal place of business at 235 East 42nd Street, New York, New York 10017 ("Pfizer") and Theravance Biopharma Ireland Limited, a company organized and existing under the laws of Ireland and having a principal place of business at Connaugh House, 1 Burlington Road, Dublin DO4 C5Y6, Ireland ("Theravance"). Pfizer and Theravance may each be referred to herein individually as a "Party" and collectively as the "Parties."

WHEREAS, Theravance solely owns certain patents, patent applications, technology, know-how, scientific and technical information and other proprietary rights and information relating to the identification, research and development of Compounds and Products (as defined below);

WHEREAS, Pfizer has extensive experience and expertise in the development and commercialization of pharmaceutical and biopharmaceutical products; and

WHEREAS, subject to the terms of this Agreement, Theravance wishes to grant to Pfizer, and Pfizer wishes to receive from Theravance, an exclusive license in the Field (as defined below) in the Territory (as defined below) under Theravance's patents, patent applications, technology, know-how, scientific and technical information and other proprietary rights and information relating to Compounds and Products to use, research, develop, manufacture, commercialize and otherwise exploit Compounds and Products.

NOW THEREFORE, in consideration of the mutual promises and covenants set forth below and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

**1. DEFINITIONS**

As used in this Agreement, the following terms will have the meanings set forth below:

1.1. "Acquiring Entity" means a Third Party that merges or consolidates with or acquires a Party, or to which a Party transfers all or substantially all of its assets to which this Agreement pertains in a Change of Control transaction.

1.2. "Affiliate" means any entity directly or indirectly controlled by, controlling, or under common control with, a Person, but only for so long as such control continues. For purposes of this definition, "control" (including, with correlative meanings, "controlled by", "controlling" and "under common control with") means (a) possession, direct or indirect, of the power to direct or cause direction of the management or policies of an entity (whether through ownership of securities or other ownership interests, by contract or otherwise), or (b) beneficial ownership of more than 50% (or the maximum ownership interest permitted by applicable Law) of the voting securities or other ownership or general partnership interest (whether directly or pursuant to any option, warrant or other similar arrangement) or other comparable equity interests of an entity; provided, however, that where an entity owns a majority of the voting power necessary to elect a majority of the board of directors or other governing board of another entity, but is restricted from electing such majority by contract or otherwise, such entity will not be considered to be in control of such other entity until such time as such restrictions are no longer in effect.

1.3. "Bankruptcy Code" means Title 11 of the United States Code, as amended.

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1.4. “Binding Obligation” means, with respect to a Party (a) any oral or written agreement or arrangement that binds such Party, including any assignment, license agreement, loan agreement, guaranty, or financing agreement, (b) the provisions of such Party’s charter, bylaws or other organizational documents or (c) any order, writ, injunction, decree or judgment of any court or Governmental Authority entered against such Party or by which any of such Party’s operations or property are bound.

1.5. “Business Day” means a day other than a Saturday, Sunday or bank or other public holiday in New York, New York, USA, or Dublin, Ireland.

1.6. “Calendar Quarter” means the respective periods of three consecutive calendar months ending on March 31, June 30, September 30 and December 31.

1.7. “Calendar Year” means any twelve (12) month period beginning on January 1 and ending on the next subsequent December 31.

1.8. “Change of Control” means, with respect to a Party (a) the acquisition of beneficial ownership, directly or indirectly, by any Person (other than such Party or an Affiliate of such Party, and other than by virtue of obtaining irrevocable proxies) of securities or other voting interest of such Party representing a majority or more of the combined voting power of such Party’s then outstanding securities or other voting interests, (b) any merger, reorganization, consolidation or business combination involving such Party with a Third Party that results in the holders of beneficial ownership (other than by virtue of obtaining irrevocable proxies) of the voting securities or other voting interests of such Party (or, if applicable, the ultimate parent of such Party) immediately prior to such merger, reorganization, consolidation or business combination ceasing to hold beneficial ownership of at least 50% of the combined voting power of the surviving entity immediately after such merger, reorganization, consolidation or business combination, (c) any sale, lease, exchange, contribution or other transfer (in one transaction or a series of related transactions) of all or substantially all of the assets of such Party to which this Agreement relates, other than a sale or disposition of such assets to an Affiliate of such Party, or (d) the approval of any plan or proposal for the liquidation or dissolution of such Party (other than in circumstances where such Party is deemed a Debtor pursuant to Section 8.7).

1.9. “Clinical Trial” means a human clinical study conducted on human subjects that is designed to (a) establish that a pharmaceutical product is reasonably safe for continued testing, (b) investigate the safety and efficacy of the pharmaceutical product for its intended use, or to define warnings, precautions and adverse reactions that may be associated with the pharmaceutical product in the dosage range to be prescribed or (c) support Regulatory Approval of such pharmaceutical product or label expansion of such pharmaceutical product.

1.10. “Combination Product” means a Product containing a Compound and one or more other therapeutically active ingredients.

1.11. “Commercialize” or “Commercializing” means to (a) market, promote, distribute, offer for sale, sell, have sold, import, have imported, export, have exported or otherwise commercialize a compound or product and (b) conduct discovery, pre-clinical, research or other Development activities with respect to a compound or product after such compound or product has received Regulatory Approval. When used as a noun, “Commercialization” means any and all activities involved in Commercializing.

1.12. “Commercially Reasonable Efforts” means, with respect to the efforts to be expended by a Party with respect to any objective, those reasonable, good faith efforts to accomplish such objective as such Party would normally use to accomplish a similar objective [\*\*\*\*\*]. With respect to any efforts relating to the Development, Regulatory Approval or Commercialization of a Compound or Product by a

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Party, generally or with respect to any particular country in the Territory, a Party will be deemed to have exercised Commercially Reasonable Efforts if such Party has exercised those efforts normally used by such Party, in the relevant country, with respect to a compound or protein, product or product candidate, as applicable, (a) which is of similar market potential in such country, and (b) which is at a similar stage in its development or product life cycle, as any Compound or Product, in each case, taking into account all Relevant Factors in effect at the time such efforts are to be expended. Further, to the extent that Pfizer's performance of its obligations hereunder is adversely affected by Theravance's failure to deliver the licenses granted under Sections 2.1 or 2.2 or perform its obligations under Sections 2.6 and 2.7 of this Agreement, the impact of such failure will be taken into account in determining whether Pfizer has used its Commercially Reasonable Efforts to perform any such affected obligations.

1.13. "Compliance" means the adherence by the Parties in all material respects to all applicable Laws and Party Specific Regulations, in each case with respect to the activities to be conducted under this Agreement.

1.14. "Compound" means Theravance's lead topical soft JAK inhibitor, [\*\*\*\*\*], the additional compounds [\*\*\*\*\*], and all other back-up compounds [\*\*\*\*\*] as of the Effective Date, including, in each case, any and all polymorphs, salts, esters, hydrates, solvates, enantiomers, free acid forms, free base forms, prodrug forms, crystalline forms, co-crystalline forms, amorphous forms, racemates, chelates, stereoisomers, tautomers and all optically active forms thereof.

1.15. "Confidential Information" means, with respect to each Party, all [\*\*\*\*\*] Know-How or other information, including proprietary information and materials (whether or not patentable) regarding or embodying such Party's or its Representatives' technology, products, business information or objectives, that is communicated by or on behalf of the Disclosing Party to the Receiving Party or its permitted recipients, on or after the Effective Date [\*\*\*\*\*]. Confidential Information does not include any Know-How or other information that (a) was already known by the Receiving Party (other than under an obligation of confidentiality to the Disclosing Party) at the time of disclosure by or on behalf of the Disclosing Party, (b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the Receiving Party, (c) became generally available to the public or otherwise part of the public domain after its disclosure to the Receiving Party, other than through any act or omission of the Receiving Party in breach of its obligations under this Agreement, (d) was disclosed to the Receiving Party, other than under an obligation of confidentiality, by a Third Party who had no direct or indirect obligation to the Disclosing Party not to disclose such information to the Receiving Party or (e) was independently discovered or developed by or on behalf of the Receiving Party without the use of or reference to any Confidential Information belonging to the Disclosing Party. The terms and conditions of this Agreement will be considered Confidential Information of both Parties.

1.16. "Control" or "Controlled" means with respect to any Intellectual Property Right or material (including any Patent Right, Know-How or other data, information or material), the ability (whether by sole, joint or other ownership interest, license or otherwise, other than pursuant to this Agreement) to, without violating the terms of any agreement with a Third Party, grant a license or sublicense or provide or provide access or other right in, to or under such Intellectual Property Right or material. Notwithstanding anything to the contrary in this Agreement, the following shall not be deemed to be Controlled by Theravance: (i) any material, Know-How or Intellectual Property Right owned or licensed by any Acquiring Entity immediately prior to the effective date of Change of Control making such Third Party an Acquiring Entity, and (ii) any material, Know-How or Intellectual Property Right that any Acquiring Entity subsequently develops without accessing or practicing the Theravance Technology.



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1.17. “Copyright” means any copyright Controlled by Pfizer, which copyright pertains to the promotional materials and literature utilized by Pfizer in connection with the Commercialization of Products in the Territory.

1.18. “Cover” means, with respect to a given Compound or Product and Patent Right, that a Valid Claim of such Patent Right would, absent a license thereunder or ownership thereof, be infringed by the manufacture, sale, offer for sale, use or importation of such Compound or Product.

1.19. “Develop” or “Developing” means to discover, research or otherwise develop a process, compound or product, including conducting non-clinical and clinical research and development activities prior to Regulatory Approval. When used as a noun, “Development” means any and all activities involved in Developing.

1.20. “Development Event” means each Development event listed in the table that appears in Section 3.2.

1.21. “Dollar” means U.S. dollar, and “\$” shall be interpreted accordingly.

1.22. “EMA” means the European Medicines Agency or any successor agency thereto.

1.23. “Exploit” means to Develop, Manufacture, Commercialize, use or otherwise exploit. Cognates of the word “Exploit” will have correlative meanings.

1.24. “FD&C Act” means the United States Federal Food, Drug, and Cosmetic Act, as amended, and the rules and regulations promulgated thereunder.

1.25. “FDA” means the United States Food and Drug Administration or any successor agency thereto.

1.26. “Field” means [\*\*\*\*\*] therapeutic, diagnostic and prophylactic human and veterinary use including [\*\*\*\*\*] topical delivery for dermatological conditions [\*\*\*\*\*] excluding [\*\*\*\*\*].

1.27. “First Commercial Sale” means, with respect to any Product and with respect to any country of the Territory, the first sale of such Product by Pfizer or an Affiliate or Sublicensee of Pfizer to a Third Party in such country after receiving approval of an NDA (and any Pricing Approvals necessary to make such sale) for such Product in an indication in the Field from the appropriate Regulatory Authority for such indication in such country.

1.28. “GAAP” means United States generally accepted accounting principles, consistently applied.

1.29. [\*\*\*\*\*]

1.30. “Generic Product” means with respect to a Product, any pharmaceutical product that (a) is sold by a Third Party that is not an Affiliate or Sublicensee of Pfizer under a marketing authorization granted by a Regulatory Authority to a Third Party, (b) contains the same Compound as such Product and (c) for purposes of the United States, is approved in reliance on a prior Regulatory Approval of a Product granted to Pfizer or a Pfizer Affiliate or Sublicensee by the FDA pursuant to Section 505(j) of the FD&C Act (or successor thereto) or, for purposes of a country outside the United States, is approved in reliance on a prior Regulatory Approval of a Product granted to Pfizer or a Pfizer Affiliate or Sublicensee by the applicable Regulatory Authority pursuant to a similar abbreviated process for therapeutically equivalent products. A

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product shall not be considered to be a Generic Product if (a) Pfizer or any of its Affiliates or Sublicensees is or was involved in, or granted such Third Party rights with respect to, the development or commercialization of such product, or (b) such product is commercialized by any Third Party who obtained such product in a chain of distribution that included Pfizer or any of its Affiliates or any Sublicensee engaged or entrusted by Pfizer or its Affiliates to (directly or indirectly) sell such product.

1.31. [\*\*\*\*\*]

1.32. “Governmental Authority” means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.

1.33. “Government Official”, to be broadly interpreted, means (a) any elected or appointed government official (e.g., a member of a ministry of health), (b) any employee or person acting for or on behalf of a government official, Governmental Authority, or other enterprise performing a governmental function, (c) any political party, candidate for public office, officer, employee, or person acting for or on behalf of a political party or candidate for public office, and (d) any employee or person acting for or on behalf of a public international organization (e.g., the United Nations). For clarity, healthcare providers employed by government-owned hospitals will be considered Government Officials.

1.34. “Intellectual Property Rights” means any and all (a) Patent Rights, (b) proprietary rights in Know-How, including trade secret rights, (c) proprietary rights associated with works of authorship and software, including copyrights, moral rights, and copyrightable works, and all applications, registrations, and renewals relating thereto, and derivative works thereof, and (d) other forms of proprietary or intellectual property rights however denominated throughout the world, other than trademarks, service marks, trade names, domain names and other indicators of origin.

1.35. “Know-How” means any proprietary invention, discovery, development, data, information, process, method, technique, material (including any chemical or biological material), technology, result, cell line, cell, antibody or other protein, compound, probe, nucleic acid (including RNAi) or other sequences or other know-how, whether or not patentable, and any physical embodiments of any of the foregoing.

1.36. “Law” means any law, statute, rule, regulation, order, judgment or ordinance of any Governmental Authority.

1.37. “Major Market Country” means any of the [\*\*\*\*\*].

1.38. “Manufacture” or “Manufacturing” means to make, produce, manufacture, process, fill, finish, package, label, perform quality assurance testing, release, ship or store, and for the purposes of further Manufacturing, distribute, import or export, a compound or product or any component thereof. When used as a noun, “Manufacture” or “Manufacturing” means any and all activities involved in Manufacturing a compound or protein, device or product or any component thereof.

1.39. “NDA” means a New Drug Application submitted to the FDA in the United States in accordance with the FD&C Act with respect to a pharmaceutical product or any analogous application or submission with any Regulatory Authority outside of the United States.

1.40. “Net Sales” shall mean the gross amounts invoiced (not including value added taxes, sales taxes, or similar taxes) for sales of Product sold by Pfizer or its Affiliates or Sublicensees of such Product to the first Third Party after deducting, for such Product: bad debts related to such Product, sales returns and allowances actually paid, granted or accrued, including trade, quantity and cash discounts and any other

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adjustments, including those granted on account of price adjustments, rejected goods, returns, rebates, chargeback rebates, reimbursements or similar payments granted or given to wholesalers or other distributors, buying groups, health care insurance carriers, chain pharmacies, mass merchandisers, staff model HMO's, pharmacy benefit managers or other institutions, customs or excise duties, sales tax, consumption tax, value added tax, and other taxes (except income taxes and all to the extent paid by Pfizer and non-refundable in accordance with Applicable Law) or duties relating to sales, compulsory or negotiated payments and cash rebates or other expenditures to the United States government, any state government or any foreign government, or to any other Governmental Authority, or with respect to any government-subsidized program or managed care organization, deductions for health care reform fees and similar deductions to gross invoice price of Product imposed by Regulatory Authorities or other governmental entities, and freight and insurance (to the extent that Pfizer, its Affiliates or its Sublicensees bear the cost of freight and insurance for the Product), provided that in each case that the amounts are, where applicable, separately charged on the relevant invoice and that such deductions do not exceed reasonable and customary amounts in the market in which such sales occurred. For clarity, no individual deduction may be taken more than once.

In the case of any sales of a Product between or among Pfizer, its Affiliates and Sublicensees for resale, Net Sales shall be calculated as above only on the value charged or invoiced on the first sale thereafter to a Third Party. In the event that Pfizer, its Affiliates or Sublicensees receives any further revenue from the relevant transferee of Product based on such transferee's resale or use of the relevant Product, any such amount received shall also be deemed part of Net Sales of such Product. Net Sales shall be determined from books and records maintained in accordance with GAAP, as consistently applied by Pfizer with respect to sales of the Product.

The deductions set forth above will also be applied in calculating Net Sales for a Combination Product. If a Product is sold as part of a Combination Product in any country in any Pfizer Quarter, the Net Sales of the Product shall be determined by multiplying the Net Sales of the Combination Product by the fraction,  $A/(A+B)$ , where: A is the weighted (by sales volume) average sale price in such country in such Pfizer Quarter of the Product when sold separately in finished form, and B is the aggregate weighted average sale price in such country in such Pfizer Quarter of the other pharmaceutically active product(s) included in the Combination Product when sold separately in finished form. If the Product is sold as part of a Combination Product and is sold separately in finished form, but the other pharmaceutically active product included in the Combination Product is not sold separately in finished form, the Net Sales of the Product shall be determined by multiplying the Net Sales of the Combination Product by the fraction  $A/C$  where: A is the weighted (by sales volume) average sale price in such country in such Pfizer Quarter of the Product contained in such Combination Product when sold separately in finished form, and C is the weighted (by sales volume) average sale price in such country in such Pfizer Quarter of the Combination Product. If the Product is sold as part of a Combination Product and is not sold separately in finished form, but the other pharmaceutically active product(s) included in the Combination Product are sold separately in finished form, the Net Sales of the Product shall be determined by multiplying the Net Sales of the Combination Product by the fraction  $(C-B)/C$  where: B is the weighted (by sales volume) average sale price in such country in such Pfizer Quarter of the other product(s) included in such Combination Product when sold separately, and C is the weighted (by sales volume) average sale price in such country in such Pfizer Quarter of the Combination Product. In the event that such average sale price cannot be determined for both the Product and the other therapeutically active ingredient(s) included in the Combination Product as set forth above, Net Sales for purposes of determining royalty payments shall be agreed by the Parties in writing based on the relative fair market value contributed by each component, such agreement not to be unreasonably withheld or delayed.

1.41. “[\*\*\*\*\*]”

[\*\*\*\*\*] Certain identified information denoted with an asterisk have been omitted from this exhibit because it is not material and would likely cause competitive harm to the Registrant if publicly disclosed.

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1.42. “Outside Indication” means an indication outside the Field.

1.43. “Party Specific Regulations” means all non-monetary judgments, decrees, orders or similar decisions issued by any Governmental Authority specific to a Party, and all consent decrees, corporate integrity agreements, or other agreements or undertakings of any kind by a Party with any Governmental Authority, in each case as the same may be in effect from time to time and applicable to a Party’s activities contemplated by this Agreement.

1.44. “Patent Rights” means any and all (a) issued patents, (b) pending patent applications, including all provisional applications, substitutions, continuations, continuations-in-part, divisions and renewals, and all patents granted thereon, (c) patents-of-addition, reissues, reexaminations and extensions or restorations by existing or future extension or restoration mechanisms, including patent term adjustments, patent term extensions, supplementary protection certificates or the equivalent thereof, (d) inventor’s certificates, (e) other forms of government-issued rights substantially similar to any of the foregoing and (f) United States and foreign counterparts of any of the foregoing.

1.45. “Person” means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, incorporated association, joint venture or similar entity or organization, including a government or political subdivision or department or agency of a government.

1.46. “Pfizer Diligence Obligations” means Pfizer’s Development and Regulatory Approval diligence obligations under Section 4.2.1 and Pfizer’s Commercialization diligence obligations under Section 4.2.2.

1.47. “Pfizer Know-How” means any Know-How that (i) is Controlled by Pfizer or any of its Affiliates or Sublicensees as of the Effective Date or that comes into the Control of Pfizer or any of its Affiliates or Sublicensees during the Term (other than through the grant of a license by Theravance) and (ii) relates to one or more Compounds or Products or the Development, Manufacture, Commercialization, use or Exploitation of any of the foregoing.

1.48. “Pfizer Patent Right” means any Patent Right that (i) is Controlled by Pfizer or any of its Affiliates or Sublicensees as of the Effective Date or that comes into the Control of Pfizer or any of its Affiliates or Sublicensees during the Term (other than through the grant of a license by Theravance) and (ii) claims any (w) Compound or Product (including the composition of matter thereof), (x) method of making any Compound or Product, (y) methods of using any Compound or Product or (z) Pfizer Know-How.

1.49. “Pfizer Quarter” means each of the four (4) thirteen (13) week periods (a) with respect to the United States, commencing on January 1 of any Pfizer Year and (b) with respect to any country in the Territory other than the United States, commencing on December 1 of any Pfizer Year.

1.50. “Pfizer Technology” means the Pfizer Patent Rights and Pfizer Know-How.

1.51. “Pfizer Year” means the twelve-month fiscal periods observed by Pfizer (a) commencing on January 1 with respect to the United States and (b) commencing on December 1 with respect to any country in the Territory other than the United States.

1.52. “Phase I Clinical Trial” means a human Clinical Trial (whether a Phase Ia or a Phase Ib trial) that generally provides for the first introduction into humans of a pharmaceutical product with the primary purpose of determining safety, metabolism and pharmacokinetic properties and clinical

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pharmacology of such product, in a manner that is generally consistent with 21 C.F.R. §312.21(a), as amended (or its successor regulation), or an equivalent clinical study required by a Regulatory Authority outside of the United States; provided however, a Phase I Clinical Trial does not include any study generally characterized by the FDA as an “exploratory IND study” in *CDER’s Guidance for Industry, Investigators and Reviewers Exploratory IND Studies*, January 2006, irrespective of whether or not such study is actually performed in the United States or under an IND.

1.53. “Phase II Clinical Trial” means a human Clinical Trial (whether a Phase IIa or a Phase IIb) designed to enroll 20 or more human subjects, the principal purpose of which is to make a preliminary determination as to whether a pharmaceutical product is safe for its intended use and to obtain sufficient information about such product’s efficacy, in a manner that is generally consistent with §312.21(b), as amended (or its successor regulation), to permit the design of further Clinical Trials, or an equivalent clinical study required by a Regulatory Authority outside of the United States.

1.54. “Phase III Clinical Trial” means a pivotal human Clinical Trial with a defined dose or a set of defined doses of a pharmaceutical product designed to ascertain efficacy and safety of such product, in a manner that is generally consistent with 21 C.F.R. § 312.21(c), as amended (or its successor regulation), for the purpose of enabling the preparation and submission of an NDA, or an equivalent clinical study required by a Regulatory Authority outside the United States.

1.55. “Price Approval” means, in any country where a Governmental Authority authorizes reimbursement for, or approves or determines pricing for, pharmaceutical products, receipt (or, if required to make such authorization, approval or determination effective, publication) of such reimbursement authorization or pricing approval or determination (as the case may be).

1.56. “Product” means any pharmaceutical product in a formulation suitable for administration to patients which contains one or more Compounds as an active ingredient, but excludes any product that includes one or more compounds or products owned or controlled by Theravance that are not a Compound.

1.57. “Regulatory Approval” means all technical, medical and scientific licenses, registrations, authorizations and approvals (including approvals of NDAs, supplements and amendments, pre- and post- approvals and labeling approvals) of any Regulatory Authority, necessary or useful for the use, Development, Manufacture, and Commercialization of a pharmaceutical or biopharmaceutical product in a regulatory jurisdiction, including commercially reasonable Price Approvals and commercially reasonable Third Party reimbursement approvals.

1.58. “Regulatory Authority” means, with respect to a country in the Territory, any national (e.g., the FDA), supra-national (e.g., the European Commission, the Council of the European Union, or the European Medicines Agency), regional, state or local regulatory agency, department, bureau, commission, council or other Governmental Authority with authority over the distribution, importation, exportation, manufacture, production, use, storage, transport, clinical testing or sale of a pharmaceutical product (including any Product) including, to the extent required in such country, Price Approval, for pharmaceutical products in such country.

1.59. “Regulatory Exclusivity” means, with respect to any country in the Territory, an additional market, data or other exclusivity, other than Patent Rights protection, granted by a Regulatory Authority in such country pursuant to which Pfizer or its Affiliates or Sublicensees have the exclusive right to market and sell a Product in such country or otherwise have the ability to exclude Third Parties from Commercializing a Product in such country.

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1.60. “Relevant Factors” means [\*\*\*\*\*] relevant factors that may affect the Development, Regulatory Approval or Commercialization of a Compound or Product, [\*\*\*\*\*] (as applicable): actual and potential issues of safety, efficacy or stability; product profile (including product modality, category and mechanism of action); stage of development or life cycle status; actual and projected Development, Regulatory Approval, Manufacturing, and Commercialization costs; any issues regarding the ability to Manufacture or have Manufactured any Compound or Product; the likelihood of obtaining Regulatory Approvals (including satisfactory Price Approvals); the timing of such approvals; the current guidance and requirements for Regulatory Approval for the Product and similar products and the current and projected regulatory status; labeling or anticipated labeling; the then-current competitive environment and the likely competitive environment at the time of projected entry into the market; past performance of the Product or similar products; present and future market potential; the ability to obtain, due to factors beyond Pfizer’s reasonable control, adequate supply of any Compound or Product, or any component thereof, from any Third Party as may be required to Develop, secure Regulatory Approval for or Commercialize any Compound or Product; Patent Rights of a Third Party; existing or projected pricing, sales, reimbursement and profitability; pricing or reimbursement changes in relevant countries; proprietary position, strength and duration of patent protection and anticipated exclusivity; and other relevant scientific, technical, operational and commercial factors.

1.61. “Representatives” means (a) with respect to Pfizer, Pfizer, its Affiliates, its Sublicensees and each of their respective officers, directors, employees, consultants, contractors and agents and (b) with respect to Theravance, Theravance, its Affiliates and each of their respective officers, directors, employees, consultants, contractors and agents.

1.62. [\*\*\*\*\*]

1.63. “Reversion Technology” means, as of the effective date of termination of this Agreement, any Pfizer Patent Rights and Pfizer Know-How Controlled by Pfizer or any of its Affiliates or Sublicensees, in each case, to the extent such Pfizer Patent Right or Pfizer Know-How is necessary to Develop, Commercialize or Manufacture any Product under Development or Commercialization by Pfizer under this Agreement at the time of termination, in the form in which such Product then exists. For clarity, Reversion Technology does not include any Pfizer compound or product that is contained in a Combination Product.

1.64. “Royalty Term” means, with respect to any particular Product in any particular country in the Territory, the period of time from the First Commercial Sale of such Product in such country until [\*\*\*\*\*].

1.65. “Sublicensee” means any Person to whom Pfizer grants or has granted, directly or indirectly, a sublicense of rights licensed by Theravance to Pfizer under this Agreement.

1.66. “Territory” means worldwide.

1.67. “Theravance Know-How” means any Know-How, other than Theravance Materials, that (a) is Controlled by Theravance or any of its Affiliates as of the Effective Date or during the Term (other than through the grant of a license by Pfizer), and (b) (i) relates to any Compound or Product and is necessary for the Development, Manufacture, Commercialization, use or Exploitation of any Compound or Product, or (ii) was as of the Effective Date or is during the Term used or created by Theravance or any of its Affiliates in the Exploitation of the Compounds or Products.

1.68. “Theravance Materials” means any tangible materials (but not information about or contained in such materials) owned or Controlled by Theravance that embody the Theravance Technology.

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1.69. “Theravance Patent Right” means any Patent Right that (a) is Controlled by Theravance or any of its Affiliates as of the Effective Date or during the Term (other than through the grant of a license by Pfizer) and (b) claims any (i) Compound or Product (including the composition of matter thereof), (ii) [\*\*\*\*\*], (iii) methods of using any Compound or Product, (iv) [\*\*\*\*\*], (v) composition [\*\*\*\*\*] containing any Compound, or (vi) any Product Developed by Theravance prior to the Effective Date or the use or Manufacture of such Product. Theravance Patent Rights include the Patent Rights listed in Schedule 7.3.3 with respect to the patents and applications.

1.70. “Theravance Technology” means the Theravance Patent Rights and Theravance Know-How.

1.71. “Theravance Third Party Agreement” means any agreement between Theravance (or any of its Affiliates) and any Third Party (such Third Party, a “Third Party Licensor”) that grants Theravance or its Affiliate a license or otherwise transfers any right to practice under any Theravance Technology.

1.72. “Third Party” means any Person other than Pfizer, Theravance or their respective Affiliates.

1.73. “Trademark” means any trademark, trade name, product name, service mark, service name, program name, brand, domain name, trade dress, logo, design, slogan or other indicia of origin or ownership whether or not registered or unregistered, including the goodwill and activities associated with each of the foregoing.

1.74. “Valid Claim” means, with respect to a particular country and Compound or Product, a claim of (a) an issued and unexpired Theravance Patent Right (including the term of any patent term extension, supplemental protection certificate, renewal or other extension) that (i) has not been held permanently revoked, unenforceable or invalid by a decision of a court or other Governmental Authority of competent jurisdiction, which decision is unappealable or unappealed within the time allowed for appeal and (ii) has not been cancelled, withdrawn, abandoned, disclaimed or admitted to be invalid or unenforceable through reissue, disclaimer or otherwise; or (b) a bona fide claim of a pending patent application included within the Theravance Patent Rights that has not been (i) cancelled, withdrawn or abandoned without being refiled in another application in the applicable jurisdiction or (ii) finally rejected by an administrative agency action from which no appeal can be taken or that has not been appealed within the time allowed for appeal, provided that any claim in any patent application pending for more than [\*\*\*\*\*] shall not be considered a Valid Claim for purposes of the Agreement from and after such [\*\*\*\*\*] date unless and until a patent containing such claim issues from such patent application.

1.75. The following terms are defined in the section of this Agreement listed opposite each term:

<b>Defined Term</b>	<b>Section in Agreement</b>
Additional Third-Party License	3.4.3(a)
Change of Control Party	6.5
Competing Company	10.1
Confidential Disclosure Agreements	10.14
Continuing Party	5.2.1(c)
Courts	10.13
Debtor	8.7.1
Declining Party	5.2.1(c)
Defending Party	5.2.7

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Development Event	3.2
Development Payment	3.2
Diligence Issue	4.2.5
Disclosing Party	6.1
Global Trade Control Laws	10.10
HCPs	8.3.10
IND Notice	2.4
[*****]	[*****]
[*****]	[*****]
[*****]	[*****]
Joint Know-How	5.1.2
Joint Patent Rights	5.1.2
Liabilities	9.2
Licensed Activities	5.2.6(a)
Litigation Conditions	9.4.2
Marginal Royalty Rate	3.4.1
Non-Defending Party	5.2.7
Non-Publishing Party	6.4.2
Notice of Dispute	10.11.1
Option	2.4
Per Product Annual Net Sales	3.4.1
[*****]	9.3
Publishing Party	6.4.2
Receiving Party	6.1
Review Period	6.4.2
Sales Milestone Payment	3.3
Sales Threshold	3.3
Term	8.2
[*****]	9.2
Third Party Claim	9.4.1
Third Party IP Rights	5.2.6(a)
Transferred Regulatory Materials	8.6.1(a)(iv)
Total Annual Net Sales	3.3
Up-Front Payment	3.1
VAT	3.6.3(a)

**2. LICENSE GRANTS, EXCLUSIVITY AND TECHNOLOGY TRANSFER.**

2.1. **Exclusive License from Theravance to Pfizer.** Subject to the terms and conditions of this Agreement, effective as of the Effective Date, Theravance will and hereby grants, on behalf of Theravance and its Affiliates, to Pfizer an exclusive (exclusive even as to Theravance or any of its Affiliates) sublicensable (in accordance with Section 2.3) license and, to the extent any Theravance Technology or Theravance Materials are Controlled by or come into the Control of Theravance pursuant to a Theravance Third Party Agreement, a sublicense, as applicable, under the Theravance Technology and to the Theravance Materials, to (a) use, have used, Develop, have Developed, Manufacture, and have Manufactured Compounds solely for incorporation into Products, and (b) to use, have used, Develop, have Developed, Manufacture, Commercialize, have Commercialized and otherwise Exploit Products, in each case in the Field in the Territory. For clarity, this Agreement does not grant Pfizer any rights to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize, have Commercialized or otherwise Exploit Compounds or Products outside the Field. Subject to Section 3.6.3(b), Pfizer shall



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have the right to have any Affiliate(s) of Pfizer exercise Pfizer's rights and obligations under this Agreement.

2.2. **Unblocking License from Theravance to Pfizer.** Without limiting any other license or sublicense granted under this Agreement and subject to the terms and conditions of this Agreement, Theravance, effective as of the Effective Date, will grant and hereby grants, and shall cause its Affiliates to grant and hereby grant, to Pfizer a non-exclusive, sublicensable license (or sublicense, as applicable) under all Patent Rights Controlled (as of the Effective Date or at any time during the Term) by Theravance or its Affiliates that Cover the Compound or any Product Developed by Theravance prior to the Effective Date (to the extent such Patent Rights are not exclusively licensed or sublicensed to Pfizer pursuant to Section 2.1), to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize and have Commercialized Compounds and Products in the Field in the Territory during the Term. For the avoidance of doubt, the foregoing is not meant to and does not require that Theravance disclose any technology to Pfizer, other than the Theravance Technology or Theravance Materials pursuant to the terms and conditions of this Agreement.

2.3. **Pfizer Sublicensees.** Pfizer will have the right to grant sublicenses to its Affiliates and Third Parties under any and all rights licensed to Pfizer pursuant to Section 2.1 or Section 2.2. Each such sublicense granted to a Third Party shall be granted pursuant, and subject to, a written agreement that is consistent with the material terms and conditions of this Agreement. Pfizer shall be and remain responsible for the actions or inactions of its Sublicensees under the applicable sublicense. Upon reasonable request by Theravance, Pfizer shall provide a copy of each such executed Third Party sublicense to Theravance, which may be redacted to the extent the terms thereof are not necessary to determine compliance with this Agreement.

2.4. **Outside Indication Option.** In the event that Theravance or its Affiliates Develops a Product outside the Field, Theravance shall provide notice to Pfizer (an "IND Notice") no later than [\*\*\*\*\*] before the date on which Theravance or any of its Affiliates intends [\*\*\*\*\*]. On an Outside Indication-by-Outside Indication basis, following receipt of an IND Notice with respect to an Outside Indication, Theravance hereby grants Pfizer an [\*\*\*\*\*] (the "Option") [\*\*\*\*\*]. Pfizer may exercise the Option [\*\*\*\*\*] with respect to an Outside Indication within [\*\*\*\*\*] of receipt of an IND Notice from Theravance by providing Theravance with written notice of such exercise. Effective upon Pfizer's exercise of the Option with respect to an Outside Indication, [\*\*\*\*\*].

2.5. **No Implied Rights.** Except as expressly provided in this Agreement, neither Party will be deemed to have granted the other Party (by implication, estoppel or otherwise) any right, title, license or other interest in or with respect to any Patent Rights, Know-How or other Intellectual Property Rights or information Controlled by such Party. Pfizer shall not, and shall not permit any of its Affiliates or Sublicensees to, practice any Theravance Know-How [\*\*\*\*\*] or Theravance Patent Rights outside the scope of the licenses granted in Section 2.1, Section 2.2 and Section 2.8 [\*\*\*\*\*].

2.6. **Initial Data Transfer.** Within a reasonable time [\*\*\*\*\*] following the Effective Date, Theravance will disclose to Pfizer true, accurate and complete copies of the Theravance Know-How listed on Schedule 2.6. Upon Pfizer's reasonable request within the first three (3) months following the Effective Date, Theravance will make employees or agents of Theravance available to Pfizer for up to [\*\*\*\*\*], to facilitate the foregoing technology transfer of the Theravance Know-How and to respond to Pfizer's inquiries pertaining to the Theravance Technology, provided that Theravance shall not be required to generate any new data or information in connection with this Section 2.6.

2.7. **Samples of Tangible Materials.** Within a reasonable time not to exceed [\*\*\*\*\*] from the Effective Date, Theravance will furnish to Pfizer any Theravance Materials, including research grade

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samples of all Compounds discovered or developed, including formulation prototypes, in Theravance's possession as of the Effective Date. Unless otherwise specified by Pfizer, Theravance will deliver all samples required pursuant to this Section 2.7 to the address specified by Pfizer within [\*\*\*\*\*] of the Effective Date. Except as set forth in Sections 2.6 and 2.7 of this Agreement, Theravance shall have no obligation to transfer Theravance Know-How or Theravance Materials to Pfizer.

**2.8. [\*\*\*\*\*]**

**3. PAYMENTS BY PFIZER TO THERAVANCE.**

3.1. **Up-Front Payment.** Pfizer will make a one-time payment of ten million Dollars (\$10,000,000) to Theravance (the "Up-Front Payment") within [\*\*\*\*\*] of the Effective Date.

3.2. **Development Payments.** Pfizer will pay Theravance the amounts set forth below (each, a "Development Payment") within [\*\*\*\*\*] following the first occurrence of each event described below for the first Product to achieve such event (each, a "Development Event").

	<b>Development Event</b>	<b>Development Payments</b>
(i)	[*****]	[*****]
(ii)	[*****]	[*****]
(iii)	[*****]	[*****]
(iv)	[*****]	[*****]
(v)	[*****]	[*****]

Each of the Development Payments set forth above will be payable one time only (regardless of the number of Products with respect to which, or the number of times with respect to any Product, the specified Development Event occurs). No Development Payments will be payable by Pfizer for any subsequent Product regardless of the number of Products Developed. For clarification, if one Product replaces another Product in Development, then such replacement Product will only be subject to Development Payments that have not previously been triggered by one or more prior Products. If any of the Development Events set forth in (i), (ii) or (iii) of the chart immediately above is achieved prior to one or more Development Event(s) preceding it on such chart having been achieved, then Pfizer will pay the Development Payment(s) for such previous Development Event(s) along with the payment for the most recently achieved Development Event. The maximum amount payable by Pfizer under this Agreement with respect to all Development Payments if all Development Events occur will be [\*\*\*\*\*].

3.3. **Sales Milestone Payments.** Pfizer will pay Theravance the following one-time payments (each, a "Sales Milestone Payment") when aggregate Net Sales of all Products during the applicable Royalty Term in a Pfizer Year in the Territory (the "Total Annual Net Sales") first reach the respective thresholds (each, a "Sales Threshold") indicated below:

<b>Sales Threshold</b>	<b>Sales Milestone Payment</b>
Total Annual Net Sales first exceeding [*****]	[*****]
Total Annual Net Sales first exceeding [*****]	[*****]
Total Annual Net Sales first exceeding [*****]	[*****]

[\*\*\*\*\*] Certain identified information denoted with an asterisk have been omitted from this exhibit because it is not material and would likely cause competitive harm to the Registrant if publicly disclosed.

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<b>Sales Threshold</b>	<b>Sales Milestone Payment</b>
Total Annual Net Sales first exceeding [*****]	[*****]
Total Annual Net Sales first exceeding [*****]	[*****]

[\*\*\*\*\*] Pfizer will make any Sales Milestone Payment payable with respect to a Pfizer Year within [\*\*\*\*\*] after the end of the applicable Pfizer Year, and such payment will be accompanied by a report identifying the Products, the relevant countries, Net Sales of each Product for each such country, and the amount payable to Theravance under this Section 3.3. For the avoidance of doubt, each of the Sales Milestone Payments set forth above will be payable one time only, regardless of the number of times the corresponding Total Annual Net Sales levels are achieved.

**3.4. Royalty Payments.**

3.4.1. **Royalties.** Subject to the provisions of Section 3.4.3, Pfizer will pay Theravance royalties on a tiered marginal royalty rate basis as set forth below (the “Marginal Royalty Rates”) based on the annual aggregate Territory-wide Net Sales resulting from the sale of all Products during each Pfizer Year of the applicable Royalty Term:

<b>Portion of Total Annual Net Sales in the Territory</b>	<b>Marginal Royalty Rate</b>
Total Annual Net Sales above [*****], up to and including [*****]	[*****]
Total Annual Net Sales above [*****], up to and including [*****]	[*****]
Total Annual Net Sales above [*****]	[*****]

Each Marginal Royalty Rate set forth in the table above will apply only to that portion of the Net Sales of Product(s) during a given Pfizer Year that falls within the indicated range. An example calculation of royalties under this Section 3.4.1 is set forth in Schedule 3.4.1.

3.4.2. **Fully Paid-Up, Royalty Free License.** Following expiration of the Royalty Term for a given Product in a given country, no further royalties will be payable in respect of sales of such Product in such country and, thereafter the licenses granted to Pfizer under Sections 2.1 and 2.2 with respect to such Product in such country will automatically become fully paid-up, perpetual, irrevocable and royalty-free.

3.4.3. **Royalty Adjustments.** The following adjustments will be made, on a Product-by-Product and country-by-country basis, to the royalties payable pursuant to Section 3.4.1:

(a) **Third Party Patents.** If it is Necessary or Useful for Pfizer to license one or more Patent Rights from one or more Third Parties in order to Develop, Manufacture, Commercialize or use any Product, whether directly or through any Pfizer Affiliate or Sublicensee, then Pfizer may, in its sole discretion, negotiate and obtain a license under such Patent Right(s) (each such Third Party license referred to herein as an “Additional Third Party License”). Pfizer may offset the royalties occurring after the First Commercial Sale of the Product in the relevant country and paid under such Additional Third Party Licenses on Net Sales [\*\*\*\*\*] against the royalties payable under Section 3.4.1 on such Net Sales as follows:

[\*\*\*\*\*]

(b) **No Adjustment for Theravance Third Party Agreements.** Theravance will be solely responsible for all obligations (including any royalty or other obligations) that relate to the Theravance Technology or Theravance Materials under its agreements with Third Parties that are in effect as of the Effective Date or that Theravance enters into during the Term.

(c) **Existing Pfizer Third Party Agreements.** Pfizer will be solely responsible for all obligations (including royalty obligations) that relate to Products under its agreements with Third Parties that are in effect on, prior to, or after (subject to Section 3.4.3(a)) the Effective Date.

(d) **Generic [\*\*\*\*\*].** Notwithstanding the foregoing, [\*\*\*\*\*] pursuant to this Section 3.4 will be reduced by [\*\*\*\*\*] such reduction to be prorated appropriately for the then-current Pfizer Quarter, if at any time Generic [\*\*\*\*\*] exists with respect to such Product in such country for so long as Generic [\*\*\*\*\*] exists in such country.

(e) **Royalty Floor.** Notwithstanding the provisions of this Section 3.4.3, the maximum reduction of royalties under Section 3.4.3, shall be [\*\*\*\*\*] of the royalties that would be due if no adjustments had been taken under this Section 3.4.3.

3.5. **Diagnostic Products.** The Parties understand and agree, notwithstanding any provision of this Agreement to the contrary, sales of Products by a Third Party solely for diagnostic purposes for which Pfizer or any of its Affiliates does not receive any milestone or royalty payments [\*\*\*\*\*].

### 3.6. Reports and Payments.

3.6.1. **Cumulative Royalties.** The obligation to pay royalties under this Agreement will be imposed only once with respect to any sale of any given unit of Product.

3.6.2. **Royalty Statements and Payments.** As soon as reasonably practicable (but in no event more than [\*\*\*\*\*]) after the end of each Calendar Quarter, Pfizer will deliver to Theravance a report setting forth, for the most recent Pfizer Quarter ending during such Calendar Quarter, the following information, on a Product-by-Product, country-by-country and Territory-wide basis: (a) Net Sales of each Product, (b) the basis for any adjustments to the royalty payable for the sale of any such Product and (c) the royalty due hereunder for the sale of each such Product. No such reports will be due for any such Product with respect to periods (i) before the First Commercial Sale of such Product or (ii) after the Royalty Term for such Product has expired in all countries in the Territory. The total royalty due for the sale of all such Products during such Pfizer Quarter will be remitted within [\*\*\*\*\*] of the end of such Calendar Quarter. Each of the Parties will designate a point of contact for such royalty reports within ninety (90) days of the First Commercial Sale.

### 3.6.3. Taxes and Withholding.

(a) It is understood and agreed between the Parties that any payments made by Pfizer to Theravance under this Agreement are exclusive of any value added or similar tax ("VAT") imposed upon such payments. Where VAT is properly added to a payment made under this Agreement, the Party making the payment will pay the amount of VAT only on receipt of a valid tax invoice issued in accordance with the laws and regulations of the country in which the VAT is chargeable, without reduction in the amount otherwise

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payable to Theravance. In addition, in the event any payments made by Pfizer pursuant to this Agreement become subject to withholding taxes under the Laws or regulations of any jurisdiction or Governmental Authority, Pfizer will deduct and withhold the amount of such taxes for the account of Theravance to the extent required by applicable Laws or regulations; such amounts payable to Theravance will be reduced by the amount of taxes deducted and withheld; and Pfizer will pay the amounts of such taxes to the proper Governmental Authority in a timely manner and transmit to Theravance an official tax certificate or other evidence of such tax obligations together with proof of payment from the relevant Governmental Authority of all amounts deducted and withheld sufficient to enable Theravance to claim such payment of taxes. Any such withholding taxes required under applicable Laws or regulations to be paid or withheld will be an expense of, and borne solely by, Theravance. Pfizer will provide Theravance with reasonable assistance to enable Theravance to recover such taxes as permitted by applicable Laws or regulations. The Parties shall reasonably cooperate with each other in claiming exemptions from such deductions and withholdings under any agreement or treaty in effect at the relevant time.

(b) Notwithstanding anything in this Agreement to the contrary, (i) if an action (including but not limited to any assignment, sublicense or exercise by any Affiliate of a Party's rights or obligations under this Agreement or payment by any Affiliate of any amount due under this Agreement, or any failure to comply with applicable Laws or filing or record retention requirements) by a Party leads to the imposition of withholding tax liability or VAT on the other Party that would not have been imposed in the absence of such action or in an increase in such liability above the liability that would have been imposed in the absence of such action, then the sum payable by that Party (in respect of which such deduction or withholding is required to be made) shall be increased to the extent necessary to ensure that the other Party receives a sum equal to the sum which it would have received had no such action occurred, (ii) otherwise, the sum payable by that Party (in respect of which withholding is required to be made) shall be made to the other Party after deduction of the amount required to be so withheld, which withheld amount shall be remitted in accordance with applicable Law.

3.6.4. **Currency.** All amounts payable and calculations under this Agreement will be in United States dollars. As applicable, Net Sales and any royalty deductions will be translated into United States dollars at the exchange rate used by Pfizer for public financial accounting purposes. If, due to restrictions or prohibitions imposed by national or international authority, a given payment cannot be made as provided in this Article 3, the Parties will consult with a view to finding a prompt and acceptable solution. If the Parties are unable to identify a mutually acceptable solution regarding such payment, then Pfizer may elect, in its sole discretion, to deliver such payment in the relevant jurisdiction and in the local currency of the relevant jurisdiction.

3.6.5. **Method of Payment.** Except as permitted pursuant to Section 3.6.4, each payment hereunder will be made by electronic transfer in immediately available funds via either a bank wire transfer, an ACH (automated clearing house) mechanism, or any other means of electronic funds transfer, at Pfizer's election, to such bank account as the Theravance will designate in writing to Pfizer at least sixty (60) days before the payment is due.

3.6.6. **Record Keeping.** Pfizer will keep and will cause its Affiliates and Sublicensees to keep books and accounts of record in connection with the sale of Products in sufficient detail to permit accurate determination of all figures necessary for verification of royalties and Sales Milestone Payments to be paid hereunder. Pfizer and its Affiliates and Sublicensees will maintain

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such records for a period of at least [\*\*\*\*\*] after the end of the Pfizer Quarter in which they were generated.

3.6.7. **Audits.** Upon [\*\*\*\*\*] prior notice from Theravance, Pfizer will permit an independent certified public accounting firm of nationally recognized standing selected by Theravance and reasonably acceptable to Pfizer, to examine, at Theravance's sole expense, the relevant books and records of Pfizer and its Affiliates as may be reasonably necessary to verify the amounts reported by Pfizer in accordance with Section 3.6.2 and the payment of royalties and Sales Milestone Payments hereunder. An examination by Theravance under this Section 3.6.7 will occur not more than once in any Calendar Year and will be limited to the pertinent books and records for any Calendar Year ending not more than [\*\*\*\*\*] before the date of the request. The accounting firm will be provided access to such books and records at Pfizer's or its Affiliates' facility(ies) where such books and records are normally kept and such examination will be conducted during normal business hours. Pfizer may require the accounting firm to sign a reasonably acceptable non-disclosure agreement before providing the accounting firm with access to Pfizer's or its Affiliates' or Sublicensee's facilities or records. Upon completion of the audit, the accounting firm will provide both Pfizer and Theravance a written report disclosing any discrepancies in the reports submitted by Pfizer or the royalties or Sales Milestone Payments paid by Pfizer, and, in each case, the specific details concerning any discrepancies. No other information will be provided to Theravance. In addition to the foregoing, Pfizer will consider in good faith any reasonable request from Theravance to exercise its rights to audit the records of Sublicensees with respect to the Products in the Field and will provide the results of such audits to Theravance.

3.6.8. **Underpayments/Overpayments.** If such accounting firm concludes that additional royalties or Sales Milestone Payments were due to Theravance, then Pfizer will pay to Theravance the additional royalties or Sales Milestone Payments within [\*\*\*\*\*] of the date Pfizer receives such accountant's written report. Further, if the amount of such underpayments exceeds more than [\*\*\*\*\*] of the amount that was properly payable to Theravance, then Pfizer will reimburse Theravance for Theravance's out-of-pocket costs in connection with the audit. If such accounting firm concludes that Pfizer overpaid royalties or Sales Milestone Payments to Theravance, then Theravance will refund such overpayments to Pfizer, within [\*\*\*\*\*] of the date Theravance receives such accountant's report.

3.6.9. **Confidentiality.** Notwithstanding any provision of this Agreement to the contrary, all reports and financial information of Pfizer, its Affiliates or its Sublicensees which are provided to or subject to review by Theravance under this Article 3 will be deemed to be Pfizer's Confidential Information and subject to the provisions of Article 6.

**4. PRODUCT DEVELOPMENT AND COMMERCIALIZATION.**

4.1. **General.** Subject to the terms and conditions of this Agreement, including the provisions of Section 4.2, Pfizer will have sole authority over and control of the Development, Manufacture, Regulatory Approval and Commercialization of Compounds and Products in the Field in the Territory and will retain final decision-making authority with respect thereto.

4.2. **Diligence.**

4.2.1. **Development Diligence.** Pfizer will use its Commercially Reasonable Efforts to Develop and seek Regulatory Approval for [\*\*\*\*\*]. Except pursuant to the foregoing and Section 8.6.1, as applicable, Pfizer will have no other diligence obligations with respect to the Development or Regulatory Approval of Products under this Agreement.

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4.2.2. **Commercial Diligence.** Pfizer will use its Commercially Reasonable Efforts to Commercialize a given Product [\*\*\*\*\*] where Pfizer has received Regulatory Approval for such Product in such indication. Except pursuant to the foregoing and Section 8.6.1, as applicable, Pfizer will have no other diligence obligations with respect to the Commercialization of Products under this Agreement.

4.2.3. **Exceptions to Diligence Obligations.** Notwithstanding any provision of this Agreement to the contrary, Pfizer will be relieved of [\*\*\*\*\*] Pfizer Diligence Obligations on a Product-by-Product and or indication-by-indication basis, to the extent that:

- (a) Pfizer or Theravance [\*\*\*\*\*]; or
- (b) Pfizer or Theravance [\*\*\*\*\*].

4.2.4. **Deemed Satisfaction of Pfizer Diligence Obligations.** Without in any way expanding Pfizer's obligations under this Agreement, [\*\*\*\*\*]. For the avoidance of doubt, the provisions of this Section 4.2.4 are intended only as examples of Diligence constituting satisfaction of the Pfizer Diligence Obligations.

4.2.5. **Assertion of Pfizer Diligence Obligation Claims.** If Theravance is or becomes aware of facts that might form a reasonable basis to allege that Pfizer has failed to meet any Pfizer Diligence Obligation, then Theravance may notify Pfizer in writing of such potential alleged performance failure (each such potential alleged performance failure, a "**Diligence Issue**"). Promptly upon Pfizer's receipt of any notice of a Diligence Issue pursuant to this Section 4.2.5, the Parties will discuss the specific nature of such Diligence Issue and seek to identify an appropriate corrective course of action. If, no later than [\*\*\*\*\*] after Pfizer's receipt of such a notice, (a) the Parties have not reached consensus regarding whether Pfizer has failed to satisfy its obligations pursuant to Section 4.2.1 or Section 4.2.2 and (b) the Parties have not agreed upon an appropriate corrective course of action for such Diligence Issue, then [\*\*\*\*\*].

4.2.6. **Remedies for Breach of Pfizer Diligence Obligations.** If Pfizer materially breaches any Pfizer Diligence Obligation and fails to remedy such breach within [\*\*\*\*\*] of Pfizer's receipt of notice of such breach from Theravance, then Theravance may, in its sole discretion, elect to either (a) terminate this Agreement pursuant to the provisions of Section 8.3.1 or (b) convert the exclusive license or sublicense granted to Pfizer under this Agreement into a non-exclusive license or sublicense, as applicable. Nothing in this Section 4.2.6 or Section 4.2.5 above shall limit Theravance's right to terminate this Agreement pursuant to Section 8.3.1 or any other right or remedy that Theravance may have in law or in equity or contract based on such failure.

4.2.7. **Performance by Pfizer's Affiliates or Sublicensees.** For avoidance of doubt, any actions taken by Pfizer's Affiliates or Sublicensees (or their respective subcontractors) under this Agreement shall be treated as actions taken by Pfizer in regard to satisfaction of the requirements of this Section 4.2.

4.3. **Regulatory Matters.**

4.3.1. **Regulatory Reporting.** Pfizer or its designated Affiliate(s) will have the sole authority and responsibility to make or file all filings, reports and communications with all Regulatory Authorities with respect to any Compound or Product in the Field in the Territory, including all reports required to be filed in order to obtain or maintain any Regulatory Approvals granted for Products in the Field in the Territory and adverse drug experience reports.

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4.3.2. **Regulatory Approvals.** Pfizer or its designated Affiliate(s) will have the sole authority and responsibility to prepare and file applications, in its own name, for Regulatory Approval for Products in the Field in the Territory, including communicating with any Regulatory Authority both prior to and following Regulatory Approval.

4.3.3. **Cooperation.** If reasonably requested by Pfizer, Theravance shall assist and cooperate with Pfizer in connection with Pfizer's preparation of filings, reports and communications to Regulatory Authorities with respect to any Compound or Product in the Field in the Territory, at Pfizer's sole expense. At Pfizer's reasonable request and expense, Theravance will and will cause its Affiliates to reasonably cooperate with Pfizer and all Pfizer Representatives in the event of any inspection by a Regulatory Authority related to any Compound or Product or any activities to be performed by Pfizer under this Agreement, solely to the extent such inspection or activities require information Controlled by Theravance that has not previously been provided to Pfizer.

4.4. **Commercialization Activities.**

4.4.1. **General.** Subject to Section 4.2, Pfizer will have sole and exclusive control over and responsibility for all matters relating to the Commercialization of Products in the Field in the Territory, including sole and exclusive control over and responsibility for (a) pricing of Products and (b) the negotiation of Product pricing with Regulatory Authorities and other Third Parties, in each case in the Field in the Territory.

4.4.2. **Branding.** Pfizer or its designated Affiliates or Sublicensees will select in its sole discretion and will exclusively own all Trademarks and Copyrights used in connection with the Commercialization of any and all Products in the Field in the Territory, other than Theravance's corporate names and logos. All applications for registration of such Trademarks and Copyrights shall, at Pfizer's discretion, be exclusively prepared, filed, prosecuted, and maintained by Pfizer, and Pfizer shall exclusively control the enforcement and defense of such Trademarks and Copyrights, with the reasonable assistance of Theravance as may be necessary. Neither Theravance nor its Affiliates will use or seek to register, anywhere in the world, any Trademark which is confusingly similar to any Trademark used by or on behalf of Pfizer, its Affiliates or Sublicensees in connection with any Product. To the extent permitted by applicable Law, Pfizer will [\*\*\*\*\*].

4.5. **Manufacturing.** Pfizer will have the exclusive right and responsibility to Manufacture such Products for the Field itself or through one or more Affiliates or Third Parties selected by Pfizer in its sole discretion. For clarity, Pfizer will have no diligence obligations with respect to the Manufacture of Products except to the extent necessary to fulfill its obligations under Section 4.2.1 or Section 4.2.2.

4.6. **Progress Reporting.** Until the First Commercial Sale of a Product, Pfizer will provide Theravance with [\*\*\*\*\*] written reports summarizing in reasonable detail Pfizer's activities to Develop Products. After the First Commercial Sale of a Product, Pfizer will provide Theravance with [\*\*\*\*\*] written reports summarizing in reasonable detail Pfizer's activities to Commercialize Products. Any information or written report provided by Pfizer to Theravance pursuant to this Section 4.6 will be deemed to be Pfizer's Confidential Information and subject to the provisions of Article 6.

4.7. **Other Pfizer Programs.** Theravance understands and acknowledges that Pfizer may have present or future initiatives or opportunities, including initiatives or opportunities with its Affiliates or Third Parties, involving products, programs, technologies or processes that [\*\*\*\*\*]. Theravance acknowledges and agrees that nothing in this Agreement will be construed as a representation, warranty, covenant or inference that Pfizer will not itself Develop, Manufacture or Commercialize or enter into



business relationships with one or more of its Affiliates or Third Parties to Develop, Manufacture or Commercialize products, programs, technologies or processes [\*\*\*\*\*].

**5. INTELLECTUAL PROPERTY.**

**5.1. Ownership of Intellectual Property.**

5.1.1. **Ownership of Intellectual Property.** Each Party will own all right, title and interest in and to: (a) any and all Know-How, compounds and products made solely by or on behalf of such Party or its Representatives in connection with their activities under this Agreement, (b) any and all Patent Rights claiming any such Know-How, compounds or products described in clause (a) of this Section 5.1.1 and (c) any and all Know-How, Patent Rights or other Intellectual Property Rights that such Party owns as of the Effective Date or otherwise acquires outside of this Agreement during the Term.

5.1.2. **Ownership of Joint Intellectual Property.** The Parties will jointly own all right, title and interest in and to: (a) any and all Know-How ("Joint Know-How"), compounds and products made jointly by or on behalf of both Parties or their Representatives in connection with their activities under this Agreement, and (b) any and all Patent Rights ("Joint Patent Rights") claiming any such Know-How, compounds or products described in clause (a) of this Section 5.1.2. Subject to the grant of licenses or sublicenses under Section 2.1 and Section 2.2 and the Parties' other rights and obligations under this Agreement, each Party will be free to exploit, either itself or through the grant of licenses to Third Parties (which Third Party licenses may be further sublicensed), Joint Patent Rights and Joint Know-How throughout the world without restriction, without the need to obtain further consent from or provide notice to the other Party, and without any duty to account or otherwise make any payment of any compensation to the other Party.

**5.2. Patent Rights.**

**5.2.1. Filing, Prosecution and Maintenance of Patent Rights.**

(a) *Theravance Patent Rights.* Theravance will have the first right to file, prosecute and maintain at its expense the Theravance Patent Rights using Theravance's in-house counsel or outside counsel of its own choice if such outside counsel is reasonably acceptable to Pfizer. Theravance will keep Pfizer advised on the status of the preparation, filing, prosecution, and maintenance of all patent applications and issued patents included within the Theravance Patent Rights. Further, Theravance will (i) allow Pfizer a reasonable opportunity and reasonable time to review and provide comment to Theravance's counsel, regarding relevant substantive communications to Theravance and drafts of any responses or other proposed substantive filings by Theravance before any applicable filings are submitted to any relevant patent office (or Governmental Authority) and (ii) consider in good faith any reasonable comments offered by Pfizer in any final filings submitted by Theravance to any relevant patent office (or Governmental Authority), in each case (i) and (ii) with respect to the Theravance Patent Rights. If Theravance elects to cease the prosecution or maintenance of a patent application or patent of a particular Theravance Patent Right in any country, Theravance will provide Pfizer with written notice of its decision not less than thirty (30) days before any action is required to avoid abandonment or lapse. If Pfizer elects to continue such prosecution or maintenance: (i) Theravance will reasonably cooperate to promptly transfer the necessary files and execute the necessary forms regarding such transfer, (ii) Theravance will have no responsibility with respect to the filing, prosecution or maintenance of, or any expenses incurred in connection with, any

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such Theravance Patent Right following Theravance's notice, and (iii) on written request by Theravance, Pfizer will keep Theravance advised on the status of the preparation, filing, prosecution, and maintenance of such Theravance Patent Rights [\*\*\*\*\*]. Theravance and Pfizer, to the extent Pfizer controls prosecution of any Theravance Patent Rights, will provide the other Party with a written update of the Theravance Patent Rights listed on Schedule 7.3.3 once per Calendar Quarter or upon reasonable written request by the other Party, provided that the representation set forth in Section 7.3.3 shall apply only with respect to the Theravance Patent Rights listed on Schedule 7.3.3 as of the Effective Date.

(b) *Pfizer Patent Rights.* Pfizer will have the sole right, but no obligation, to file, prosecute and maintain the Patent Rights that it owns or to which it otherwise has control of prosecution rights, including the Pfizer Patent Rights, in its sole discretion.

(c) *Joint Patent Rights.* In the event the Parties make any Joint Know-How, the Parties will promptly meet to discuss and determine, based on mutual consent, whether to seek patent protection thereon. Neither Party will file any Joint Patent Right without mutual consent of the Parties. If the Parties decide to seek patent protection for any Joint Know-How, Pfizer will have the first right, but not the obligation, to prepare, file, prosecute and maintain at its expense any Joint Patent Right throughout the world. Where Pfizer declines to exercise its first right to file on a Joint Patent Right that the Parties have agreed to file, Theravance shall have the right to file at its expense such Joint Patent Right. The prosecuting Party will keep the non-prosecuting Party advised on the status of the preparation, filing, prosecution and maintenance of such Joint Patent Rights.

(d) *Patent Term Restoration and Extension.* Pfizer will have the exclusive right, but not the obligation, to seek, in Theravance's name (or, subject to the terms of the Theravance Third Party Agreements, in the name of a Third Party Licensor) if so required, patent term extensions, and supplemental protection certificates and the like available under Law, including 35 U.S.C. § 156 and applicable foreign counterparts, in any country in the Territory in relation to the Theravance Patent Rights and Joint Patent Rights. Theravance and Pfizer will cooperate in connection with all such activities at Pfizer's expense and request. Pfizer, its agents and attorneys will give due consideration to all suggestions and comments of Theravance regarding any such activities, but in the event of a disagreement between the Parties, Pfizer will have the final decision-making authority; provided, however, that Pfizer will seek (or allow Theravance to seek) to extend any Theravance Patent Right at Theravance's request, including through the use of supplemental protection certificates and the like, unless in Pfizer's reasonable legal determination such Theravance Patent Right may not be extended under Law without limiting Pfizer's right to extend any other Patent Right.

(e) *Clarifications.* For clarity, (i) prosecution under this Section 5.2.1 includes opposition, revocation, post-grant review or other patent office proceedings, unless such proceedings are concurrent with Third Party litigation under Section 5.2.2, in which case the provisions of Section 5.2.2 shall govern the Parties' rights and obligations with respect to such proceedings, and (ii) Third Party declaratory judgment actions or other court actions relating to Patent Rights shall be governed by Section 5.2.2, and by Section 5.2.3 if applicable.

(f) *Liability.* To the extent that a Party is obtaining, prosecuting or maintaining a Patent Right or otherwise exercising its rights under this Section 5.2.1, such Party, and its Affiliates, employees, agents or representatives, will not be liable to the other

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Party in respect of any act, omission, default or neglect on the part of any such Party, or its Affiliates, employees, agents or representatives, in connection with such activities undertaken in good faith.

(g) *Recording.* If Pfizer deems it necessary or desirable to register or record this Agreement or evidence of this Agreement with any patent office or other appropriate Governmental Authority(ies) in one or more jurisdictions in the Territory, Theravance will reasonably cooperate to execute and deliver to Pfizer any documents accurately reflecting or evidencing this Agreement that are necessary or desirable, in Pfizer's reasonable judgment, to complete such registration or recordation, at Pfizer's request and expense.

**5.2.2. Enforcement and Defense of Patent Rights.**

(a) *Enforcement of Theravance Patent Rights and Joint Patent Rights in the Field.* Each Party will promptly notify the other in the event of any actual, potential or suspected infringement of a patent under the Theravance Patent Rights or the Joint Patent Rights by any Third Party. As between Pfizer and Theravance, Pfizer will have the first right, but not the obligation, to institute litigation or take other steps to remedy infringement in connection with the Theravance Patent Rights in the Field in the Territory and the Joint Patent Rights in the Field, and any such litigation or steps will be at Pfizer's expense; provided that any infringement recoveries resulting from such litigation or steps relating to a claim of Third Party infringement, after deducting each Party's out of pocket expenses (including counsel fees and expenses) in pursuing such claim, will be shared by the Parties based on the amount of such costs and expenses incurred by each Party); and with respect to any remaining proceeds, (i) the Parties shall negotiate in good faith an appropriate allocation of such remaining proceeds to reflect the economic interests of the Parties under this Agreement with respect to such infringement and (ii) unless otherwise agreed in subsection (i), [\*\*\*\*\*]. Pfizer will not, without the prior written consent of Theravance, enter into any compromise or settlement relating to such litigation that (i) admits the invalidity or unenforceability of any Theravance Patent Right or Joint Patent Right or (ii) requires Pfizer or Theravance to abandon any Theravance Patent Right or Joint Patent Right. Theravance, upon request of Pfizer, agrees to timely commence or to join in any such litigation, at Pfizer's expense, and in any event to cooperate with Pfizer in such litigation or steps at Pfizer's expense. Theravance will have the right to consult with Pfizer about such litigation and to participate in and be represented by independent counsel in such litigation at Theravance's own expense. If Pfizer does not institute litigation or takes other steps to remedy infringement in connection with the Theravance Patent Rights in the Field in the Territory or the Joint Patent Rights in the Field, Theravance will have the second right, but not the obligation, to institute litigation or take other steps to remedy infringement in connection with the Theravance Patent Rights and any such litigation or steps will be at Theravance's expense. Any infringement recoveries resulting from such litigation or steps relating to such claim of Third Party infringement, after deducting each Party's out of pocket expenses (including counsel fees and expenses in pursuing such claim) will be split [\*\*\*\*\*]. Pfizer, upon request of Theravance, agrees to reasonably cooperate with Theravance in such litigation or steps at Pfizer's expense but shall not be required to join in such litigation. Pfizer will have the right to consult with Theravance about such litigation and be represented by independent counsel in such litigation [\*\*\*\*\*]. Neither Party will incur liability to the other Party as a consequence of any litigation initiated or pursued pursuant to this section or any unfavorable decision resulting therefrom, including any decision holding any Theravance Patent Rights or Joint Patent Rights invalid or unenforceable.

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(b) *Enforcement of Theravance Patent Rights and Joint Patent Rights Outside the Field.* As between Pfizer and Theravance, Theravance will have the sole right, but not the obligation, to institute litigation or take other steps to remedy infringement in connection with the Theravance Patent Rights outside the Field or the Joint Patent Rights outside the Field, and any such litigation or steps will be at Theravance's expense; provided that any infringement recoveries resulting from such litigation or steps relating to a claim of Third Party infringement, after deducting each Party's out of pocket expenses (including counsel fees and expenses) in pursuing such claim, will be shared by the Parties based on the amount of such costs and expenses incurred by each Party; and any remaining proceeds shall be retained by Theravance. Theravance will not, without the prior written consent of Pfizer, enter into any compromise or settlement relating to such litigation that (i) admits the invalidity or unenforceability of any Theravance Patent Right or Joint Patent Right or (ii) requires Pfizer or Theravance to abandon any Theravance Patent Right or Joint Patent Right. Pfizer, upon request of Theravance, agrees to timely commence or to join in any such litigation, at Theravance's expense, and in any event to cooperate with Theravance in such litigation or steps at Pfizer's expense.

(c) *Enforcement of Pfizer Patent Rights.* Pfizer will have the sole right, but no obligation, to take action to obtain a discontinuance of infringement or bring suit against a Third Party infringing or challenging the validity or enforceability of any Pfizer Patent Right.

5.2.3. **Other Actions by Third Parties.** Each Party will promptly notify the other Party in the event of any legal or administrative action by any Third Party involving any Theravance Patent Right or Joint Patent Right of which it becomes aware, including any nullity, revocation, interference, reexamination, compulsory license proceeding, or any action taken relating to the Bayh-Dole Act. Theravance will have the first right, but no obligation, to defend against or otherwise control any such action involving any Theravance Patent Right or Joint Patent Right, in its own name (to the extent permitted by applicable Law), and any such defense or action will be at Theravance's expense. Pfizer, upon Theravance's request, agrees to join in any such action at Theravance's expense and in any event to cooperate with Theravance at Theravance's expense. If Theravance fails to defend against any such action involving a Theravance Patent Right or Joint Patent Right, then Pfizer will have the right to defend such action, in its own name, and any such defense will be at Pfizer's expense.

5.2.4. **Orange Book Information.** Pfizer will have the sole right and responsibility to submit to all applicable Governmental Authorities patent information pertaining to each Product in the Field in the Territory pursuant to 21 U.S.C. § 355(b)(1)(G) (or any amendment or successor statute thereto), or any similar statutory or regulatory requirement in any non-U.S. country or other regulatory jurisdiction.

5.2.5. **Paragraph IV Type Notices.** Notwithstanding any provision of this Agreement to the contrary, each Party will immediately (but in no event later than two Business Days following receipt or discovery, whichever occurs first) give written notice to the other of any certification of which it becomes aware filed pursuant to any statutory or regulatory requirement in any country in the Territory similar to 21 U.S.C. § 355(b)(2)(A)(iv) or § 355(j)(2)(A)(vii) (IV) (or any amendment or successor statute thereto) claiming that any Theravance Patent Right or Joint Patent Right covering any Compound or Product is invalid or that infringement will not arise from the Development, Manufacture, use or Commercialization in the Territory of such Compound or Product by a Third Party. Upon the giving or receipt of such notice, subject to the terms of the Theravance Third Party Agreements, Pfizer will have the first right, but not the obligation, to bring

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an infringement action against such Third Party, at its own cost. In connection with any action brought by Pfizer under this Section 5.2.5, Theravance, upon Pfizer's request, will and will cause a Third Party Licensor to, as applicable, reasonably cooperate with Pfizer in any such action at Pfizer's expense and will timely commence or join in any such action at Pfizer's request and expense. If Pfizer does not institute an infringement action against such Third Party, Theravance will have the second right, but not the obligation, to bring an infringement action against such Third Party, at its own cost. In connection with any action brought by Theravance under this Section 5.2.5, Pfizer, upon Theravance's request, will reasonably cooperate with Theravance in any such action at Theravance's expense and will timely commence or join in any such action at Theravance's request and expense. In the event of any conflict between the terms of this Section 5.2.5 and the terms of Section 5.2.2(a), the terms of this Section 5.2.5 will control and govern.

**5.2.6. Allegations of Infringement and Right to Seek Third Party Licenses.**

(a) *Notice.* If the Development, Manufacture, Commercialization or use of any Compound or Product, the practice of any Theravance Technology, or the exercise of any other right granted by Theravance to Pfizer hereunder (collectively, the "Licensed Activities") by Pfizer or any of its Affiliates or Sublicensees is alleged to Theravance by a Third Party to infringe, misappropriate or otherwise violate such Third Party's Patent Rights or other Intellectual Property Rights or Theravance otherwise identifies any Third Party Patent Rights or other Intellectual Property Rights that may be relevant to such activities, Theravance will, promptly upon becoming aware of such allegation or identification, notify Pfizer in writing.

(b) *Pfizer Option to Negotiate.* If Pfizer determines, in its sole discretion, that, in order for Pfizer, its Affiliates or Sublicensees to engage in the Licensed Activities, it is necessary or desirable to obtain a license under one or more Patent Rights or other Intellectual Property Rights Controlled by a Third Party (collectively, "Third Party IP Rights"), then Pfizer will have the sole right, but not the obligation, to negotiate and enter into a license or other agreement with such Third Party. Royalties payable under any such license or agreement with a Third Party [\*\*\*\*\*].

**5.2.7. Third Party Infringement Suits.** Each of the Parties will promptly notify the other in the event that any Third Party files any suit or brings any other action alleging patent infringement by Pfizer or Theravance or any of their respective Affiliates or Sublicensees with respect to the Development, Manufacture, Commercialization or use of any Compound or Product (any such suit or other action referred to herein as an "Infringement Claim"). In the case of any Infringement Claim against either Party (including its Affiliates or Sublicensees) (the "Defending Party") alone or against both Pfizer and Theravance (including its Affiliates), the Defending Party will have the right, but not the obligation, to control the defense of such Infringement Claim, including control over any related litigation, settlement, appeal or other disposition arising in connection therewith. The other Party (the "Non-Defending Party"), upon request of the Defending Party, agrees to cooperate with the Defending Party at the Defending Party's expense. The Non-Defending Party will have the right to consult with the Defending Party concerning any Infringement Claim and to participate in and be represented by independent counsel in any associated litigation in which the Defending Party is a party at the Non-Defending Party's own expense. In the case of any Infringement Claim against Theravance alone, Pfizer will have the right to consult with Theravance concerning such Infringement Claim and Pfizer, upon request of Theravance, will reasonably cooperate with Theravance at Theravance's expense.

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5.2.8. **Misappropriation Actions Relating to Pfizer Know-How.** Pfizer will have the sole right, but not the obligation, to take action to obtain a discontinuance of misappropriation or bring suit against a Third Party that is misappropriating or that is suspected of misappropriating any Pfizer Know-How.

**6. CONFIDENTIALITY.**

6.1. **Confidentiality.** Except to the extent expressly authorized by this Agreement, the Parties agree that, during the Term and for [\*\*\*\*\*] years thereafter, each Party (the "Receiving Party") receiving any Confidential Information of the other Party (the "Disclosing Party") hereunder will: (a) keep the Disclosing Party's Confidential Information confidential; (b) not disclose, or permit the disclosure of, the Disclosing Party's Confidential Information; and (c) not use, or permit to be used, the Disclosing Party's Confidential Information for any purpose other than as expressly permitted under the terms of this Agreement.

6.2. **Authorized Disclosure.**

6.2.1. **Disclosure to Party Representatives.** Notwithstanding the foregoing provisions of Section 6.1, the Receiving Party may disclose Confidential Information belonging to the Disclosing Party to the Receiving Party's Representatives who (a) have a need to know such Confidential Information in connection with the performance of the Receiving Party's obligations or the exercise of the Receiving Party's rights under this Agreement and (b) have agreed in writing to non-disclosure and non-use provisions with respect to such Confidential Information that are at least as restrictive as those set forth in this Article 6.

6.2.2. **Disclosure to Third Parties.** Notwithstanding the foregoing provisions of Section 6.1, each Party may disclose Confidential Information belonging to the other Party to the extent such disclosure is reasonably necessary:

(a) to Governmental Authorities (i) to the extent [\*\*\*\*\*] to obtain or maintain INDs or Regulatory Approvals for any Compound or Product within the Territory, and (ii) in order to respond to inquiries, requests or investigations relating to Compounds, Products or this Agreement;

(b) to outside consultants (including any professional advisor), contractors, advisory boards, managed care organizations, and non-clinical and clinical investigators, in each case to the extent desirable to develop, register or market any Compound or Product; provided that the Receiving Party will obtain the same confidentiality obligations from such Third Parties as it obtains with respect to its own similar types of confidential information, and in any event no less restrictive than those set forth in this Article 6;

(c) to actual or potential acquisition partners (including any potential successors in interest), private investors or financing sources, provided that the Receiving Party will obtain the same confidentiality obligations from such Third Parties as it obtains with respect to its own similar types of confidential information, and in any event no less restrictive than those set forth in this Article 6;

(d) in connection with filing or prosecuting or Trademark rights as permitted by this Agreement;

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(e) in connection with prosecuting or defending litigation pursuant to Section 5.2 or any other litigation directly related to a Compound or Product;

(f) subject to the provisions of Section 6.4.2, in connection with or included in scientific presentations and publications relating to Compounds or Products, including abstracts, posters, journal articles, and the like, and posting results of and other information about clinical trials to clinicaltrials.gov or PhRMA websites;

(g) Pfizer may disclose Confidential Information belonging to Theravance (including the terms of the Agreement) to any bona fide or potential sublicensee or co-development or co-promotion partner who has agreed in writing to non-disclosure and non-use provisions with respect to such Confidential Information that are at least as restrictive as those set forth in this Article 6; and

(h) to the extent necessary or desirable in order to enforce its rights under this Agreement.

If a Party deems it reasonably necessary to disclose Confidential Information belonging to the other Party pursuant to clause (a) or any of clauses (d) through (e) of this Section 6.2.2, then the disclosing Party will to the extent possible give reasonable advance written notice of such disclosure to the other Party and take such measures to ensure confidential treatment of such information as is reasonably required by the other Party[\*\*\*\*\*].

**6.3. SEC Filings and Other Disclosures.** Either Party may disclose the terms of this Agreement and make any other public written disclosure regarding the existence of, or performance under, this Agreement, to the extent required, in the reasonable opinion of such Party's legal counsel, to comply with (a) applicable Law, including the rules and regulations promulgated by the United States Securities and Exchange Commission or (b) any equivalent Governmental Authority, securities exchange or securities regulator in any country in the Territory. Before disclosing this Agreement or any of the terms hereof pursuant to this Section 6.3, the Parties will consult with one another on the terms of this Agreement to be redacted in making any such disclosure, with the Party disclosing pursuant to this Section 6.3 providing as much advance notice as is feasible under the circumstances, and giving consideration to the comments of the other Party. Further, if a Party discloses this Agreement or any of the terms hereof in accordance with this Section 6.3, such Party will, at its own expense, seek such confidential treatment of confidential portions of this Agreement and such other terms, as may be reasonably requested by the other Party and limit its disclosure of such Confidential Information to only that required to comply with applicable Law.

**6.4. Public Announcements; Publications.**

**6.4.1. Announcements.** Except as may be expressly permitted under Section 6.3, neither Party will make any public announcement regarding this Agreement without the prior written approval of the other Party. For the sake of clarity, nothing in this Agreement will prevent Pfizer from making any public announcement with respect to any Product under this Agreement; provided, however, that, except as permitted under Section 6.2, Pfizer will not disclose any of Theravance's Confidential Information in any such announcement without obtaining Theravance's prior written consent to do so. The Parties agree that the Parties may release the announcement attached hereto as Schedule 6.4.1 regarding the signing of this Agreement following the Effective Date.

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6.4.2. **Publications.** During the Term, each Party (the “Publishing Party”) will submit to the other Party (the “Non-Publishing Party”) for review and approval any proposed publication or public presentation [\*\*\*\*\*] proposed by the Publishing Party or its Affiliates or any of their respective Representatives that relates to the activities conducted under this Agreement or otherwise relating to the Theravance Technology, the Theravance Materials, the Pfizer Technology or any Compound or Product. Such review and approval will be conducted for the purposes of preserving the value of the Theravance Technology, Theravance Materials, the Compounds and Products, the Pfizer Technology and the rights granted or to be granted hereunder and determining whether any portion of the proposed publication or presentation containing the Non-Publishing Party’s Confidential Information should be modified or deleted. Written copies of such proposed publication or presentation required to be submitted hereunder will be submitted to the Non-Publishing Party no later than [\*\*\*\*\*] before submission for publication or presentation (the “Review Period”). The Non-Publishing Party will provide its comments with respect to such publications and presentations within [\*\*\*\*\*] of its receipt of such written copy. The Review Period may be extended for an additional [\*\*\*\*\*] in the event the Non-Publishing Party can, within [\*\*\*\*\*] of receipt of the written copy, demonstrate reasonable need for such extension including for the preparation and filing of patent applications. The Publishing Party will comply with standard academic practice regarding authorship of scientific publications and recognition of contribution of other parties in any publication governed by this Section 6.4.2, including International Committee of Medical Journal Editors standards regarding authorship and contributions.

6.5. **Obligations in Connection with Change of Control.** If either Party (the “Change of Control Party”) is subject to a Change of Control, the Change of Control Party will, and it will cause its Representatives to, ensure that no Confidential Information of the other Party is released to (a) any Affiliate of the Change of Control Party that becomes an Affiliate as a result of the Change of Control or (b) any other Representatives of the Change of Control Party (or of the relevant surviving entity of such Change of Control) who become the Change of Control Party’s Representatives as a result of the Change of Control, unless such Affiliate or other Representatives, as applicable, have signed individual confidentiality agreements which include obligations at least as restrictive as those set out in this Article 6.

6.6. [\*\*\*\*\*].

**7. REPRESENTATIONS AND WARRANTIES.**

7.1. **Mutual Representations and Warranties.** Each of Theravance and Pfizer hereby represents and warrants to the other Party that:

7.1.1. it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization;

7.1.2. the execution, delivery and performance of this Agreement by such Party has been duly authorized by all requisite action under the provisions of its charter, bylaws and other organizational documents, and does not require any action or approval by any of its shareholders or other holders of its voting securities or voting interests;

7.1.3. it has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder;

7.1.4. this Agreement has been duly executed and is a legal, valid and binding obligation on each Party, enforceable against such Party in accordance with its terms; and



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7.1.5. the execution, delivery and performance by such Party of this Agreement and its compliance with the terms and provisions hereof does not and will not conflict with or result in a breach of or default under any Binding Obligation existing as of the Effective Date.

7.2. **Mutual Covenants.** Each of Theravance and Pfizer hereby covenants to the other Party that, from the Effective Date until expiration or termination of this Agreement, it will perform its obligations under this Agreement in compliance with applicable Laws.

7.3. **Representations and Warranties of Theravance.** Theravance hereby represents and warrants to Pfizer as of the Effective Date that:

7.3.1. Theravance is the sole and exclusive owner of, or otherwise has the right to grant the licenses granted hereunder, whether itself or through one or more Third Party Agreements, under and to the Theravance Technology and Theravance Materials, free and clear of any claims, liens, charges or encumbrances;

7.3.2. Theravance has and will have the full right, power and authority to (i) grant all of the right, title and interest in the licenses and other rights granted or to be granted to Pfizer, Pfizer's Affiliates or Pfizer's Sublicensees under this Agreement and (ii) perform its obligations under this Agreement;

7.3.3. (a) Schedule 7.3.3 sets forth a true and complete list of all Theravance Patent Rights (i) owned or otherwise Controlled by Theravance or its Affiliates as of the Effective Date or (ii) to which Theravance or its Affiliates have been granted or otherwise transferred any right to practice under Theravance Patent Right, (b) each such Theravance Patent Right remains in full force and effect and (c) Theravance or its Affiliates have timely paid, or caused the appropriate Third Parties to pay, all filing and renewal fees payable with respect to such Theravance Patent Rights;

7.3.4. Theravance has disclosed to Pfizer all material scientific and technical information and all information relating to safety and efficacy in its possession and Control with respect to the Theravance's lead topical soft JAK inhibitor, [\*\*\*\*\*], and Products incorporating such Compound;

7.3.5. to Theravance's knowledge, (a) the issued Patent Rights within the Theravance Patent Rights, are valid and enforceable and (b) no Third Party (i) is infringing any Theravance Patent Right or (ii) has challenged or threatened to challenge the ownership, scope, validity or enforceability of, or Theravance's rights in or to, any Theravance Patent Right (including, by way of example, through the institution or written threat of institution of interference, nullity or similar invalidity proceedings before the United States Patent and Trademark Office or any analogous foreign Governmental Authority);

7.3.6. Theravance, its Affiliates and, to Theravance's knowledge, Third Parties and Representatives acting on Theravance's behalf in connection with this Agreement, have complied with all applicable Laws, including any disclosure requirements, in connection with the filing, prosecution and maintenance of the Theravance Patent Rights;

7.3.7. Theravance, its Affiliates, and to Theravance's knowledge, all third parties and Representatives acting on Theravance's behalf with respect to the Development of the Compounds, have complied in all material respects with all applicable Law and accepted pharmaceutical industry business practices, including, to the extent applicable, the FD&C Act (21 U.S.C. § 301, et seq.), the Anti-Kickback Statute (42 U.S.C. § 1320a-7b), Civil Monetary Penalty Statute (42 U.S.C.

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§ 1320a-7a), the False Claims Act (31 U.S.C. § 3729 et seq.), comparable state statutes, the regulations promulgated under all such statutes, and the regulations issued by the FDA, consistent with the 'Compliance Program Guidance for Pharmaceutical Manufacturers' published by the Office of Inspector General, U.S. Department of Health and Human Services;

7.3.8. with respect to any Compounds and Products, Theravance, its Affiliates, and to its knowledge all Third Parties and Representatives acting on Theravance's behalf, have not taken any action directly or indirectly to offer, promise or pay, or authorize the offer or payment of, any money or anything of value in order to improperly or corruptly seek to influence any Government Official or any other person in order to gain an improper advantage, and has not accepted such payment, in connection with the Development of the Compounds;

7.3.9. Theravance, its Affiliates, and to its knowledge all Third Parties and Representatives acting on Theravance's behalf with respect to the Development of the Compounds has complied in all material respects with the laws and regulations of the countries where it operates, including anti-bribery and anti-corruption laws, including, to the extent applicable, the U.S. Foreign Corrupt Practices Act of 1977 and the U.K. Bribery Act 2010, accounting and record keeping laws, and laws relating to interactions with healthcare professionals or healthcare providers (collectively, "HCPs") and Government Officials in performing such activities;

7.3.10. Theravance has policies and procedures setting out rules governing interactions with HCPs and Government Officials and engagement of Third Parties ("Policies"), and its Policies mandate internal controls, including accounting controls, designed to ensure fair and accurate books, records and accounts, and apply worldwide to all its employees, subsidiaries, and Third Parties acting on its behalf;

7.3.11. Theravance has provided training to its officers, directors, employees and where appropriate, its other Representatives on its Policies;

7.3.12. Theravance has an assurance program involving regular monitoring and auditing of activities to ensure compliance with its Policies and the adequacy of internal controls, and remediation of identified issues;

7.3.13. Theravance has not to its knowledge used or employed in any capacity related to the Development of the Compounds any Representative of Theravance or Third Party acting on behalf of Theravance (in each case, as applicable) that has been debarred by any Regulatory Authority or is the subject of debarment proceedings by any Regulatory Authority.

7.3.14. Theravance has obtained from all inventors listed in the Theravance Patent Rights existing as of the Effective Date agreements assigning to Theravance each such inventor's entire right, title and interest in and to all such Theravance Patent Rights;

7.3.15. no Theravance Technology existing as of the Effective Date is subject to any funding agreement with any government or Governmental Authority;

7.3.16. neither Theravance nor any of its Affiliates are party to or otherwise subject to any agreement or arrangement which limits the ability of Theravance or its Affiliates to grant a license, sublicense or access, or provide access or other rights in, to or under, any Intellectual Property Right or material (including any Patent Right or Know-How), in each case, that would, but for such agreement or arrangement, be included in the rights licensed or assigned to Pfizer under this Agreement;

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7.3.17. neither Theravance nor its Affiliates have granted to any Third Party any right, title or interest in or to, or any license under, any Theravance Technology or Theravance Materials to Develop, Manufacture or Commercialize Compounds outside of the Field;

7.3.18. [\*\*\*\*\*] to the best of Theravance's knowledge, the use, Development, Manufacture or Commercialization by Theravance or Pfizer (or their respective Affiliates or Sublicensees) of any Compound for the treatment of a dermatological condition does not and will not infringe any issued patent of any Third Party;

7.3.19. there is no (a) claim, demand, suit, proceeding, arbitration, inquiry, investigation or other legal action of any nature, civil, criminal, regulatory or otherwise, pending or, to the best knowledge of Theravance, threatened against Theravance or any of its Affiliates or (b) judgment or settlement against or owed by Theravance or any of its Affiliates, in each case in connection with the Theravance Technology, the Theravance Materials, any Compound or any Product or relating to the transactions contemplated by this Agreement;

7.3.20. Theravance is not, and to Theravance's knowledge, no Representative of Theravance or Third Party acting on behalf of Theravance (in each case, as applicable) is, debarred by any Regulatory Authority or the subject of debarment proceedings by any Regulatory Authority and, in the course of the discovery or pre-clinical development of any Compound or Product, Theravance has not and, to Theravance's Knowledge, no Third Party acting on behalf of Theravance (in each case, as applicable) has used any employee or consultant that is debarred by any Regulatory Authority or, to the Theravance's knowledge, is the subject of debarment proceedings by any Regulatory Authority; and

7.3.21. as of the Effective Date, Theravance has no knowledge of (a) any prior art or other facts that Theravance believes would result in the invalidity or unenforceability of any issued or pending claims included in the Theravance Patent Rights, (b) any inequitable conduct or fraud on any patent office with respect to any of the Theravance Patent Rights or (c) any Person (other than Persons identified in the applicable patent applications or patents, as inventors of inventions disclosed in the Theravance Patent Rights) who claims to be an inventor of an invention disclosed in the Theravance Patent Rights.

7.4. **Accuracy of Representations and Warranties.** Theravance will promptly notify Pfizer of any lawsuits, claims, administrative actions, regulatory inquiries or investigations, or other proceedings asserted or commenced against Theravance or its Representatives involving in any material way the ability of Theravance to deliver the rights, licenses and sublicenses granted herein.

7.5. **Theravance Covenants.** In addition to the covenants made by Theravance elsewhere in this Agreement, Theravance hereby covenants to Pfizer that, from the Effective Date until expiration or termination of this Agreement:

7.5.1. Theravance will not, and will cause its Affiliates not to (a) license, sell, assign (other than in a connection with a permitted assignment of this Agreement by Theravance pursuant to Section 10.1) or otherwise transfer to any Person (other than Pfizer or its Affiliates or Sublicensees pursuant to the terms of this Agreement) any Theravance Technology or Theravance Materials (or agree to do any of the foregoing) or (b) incur or permit to exist, with respect to any Theravance Technology, any lien, encumbrance, charge, security interest, mortgage, liability, assignment, grant of license or other Binding Obligation that is or would be inconsistent with the licenses and other rights granted (or that may be granted) to Pfizer or its Affiliates under this Agreement;

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7.5.2. Theravance will (a) not enter into any Theravance Third Party Agreement that adversely affects the rights granted (or that may be granted) to Pfizer, Pfizer's Affiliates or Sublicensees hereunder and (b) promptly provide notice to Pfizer if any Theravance Third Party Agreements are amended or terminated following the Effective Date;

7.5.3. Theravance will not enter into or otherwise allow itself or its Representatives to be subject to any agreement or arrangement for the purpose of excluding any Patent Right that would otherwise be a Theravance Patent Right from the licenses granted to Pfizer under this Agreement;

7.5.4. [\*\*\*\*\*]

7.5.5. Theravance will disclose to Pfizer all material scientific and technical information and all information relating to safety and efficacy in its possession and Control as of the Effective Date with respect to Compounds and Products other than Theravance's lead topical soft JAK inhibitor, [\*\*\*\*\*], and Products incorporating such Compound, within [\*\*\*\*\*] following the Effective Date.

7.6. **Pfizer Covenants.** In addition to the covenants made by Pfizer elsewhere in this Agreement, Pfizer hereby covenants to Theravance that, from the Effective Date until expiration or termination of this Agreement:

7.6.1. Representatives acting on Pfizer's behalf in connection with the activities under the Agreement will comply in all material respects with all applicable Law and accepted pharmaceutical industry business practices, including, to the extent applicable, the FD&C Act (21 U.S.C. § 301, et seq.), the Anti-Kickback Statute (42 U.S.C. § 1320a-7b), Civil Monetary Penalty Statute (42 U.S.C. § 1320a-7a), the False Claims Act (31 U.S.C. § 3729 et seq.), comparable state statutes, the regulations promulgated under all such statutes, and the regulations issued by the FDA, consistent with the 'Compliance Program Guidance for Pharmaceutical Manufacturers' published by the Office of Inspector General, U.S. Department of Health and Human Services;

7.6.2. with respect to any Compounds, Products, payments or services provided under this Agreement, Pfizer, its Affiliates, and to its knowledge all Third Parties and Representatives acting on Pfizer's behalf, will not take any action directly or indirectly to offer, promise or pay, or authorize the offer or payment of, any money or anything of value in order to improperly or corruptly seek to influence any Government Official or any other person in order to gain an improper advantage, and has not accepted such payment;

7.6.3. Pfizer, its Affiliates, and to its knowledge all Third Parties and Representatives acting on Pfizer's behalf in connection with the activities under this Agreement, will comply in all material respects with the laws and regulations of the countries where it operates, including anti-bribery and anti-corruption laws, including, to the extent applicable, the U.S. Foreign Corrupt Practices Act of 1977 and the U.K. Bribery Act 2010, accounting and record keeping laws, and laws relating to interactions with healthcare professionals or healthcare providers (collectively, "HCPs") and Government Officials;

7.6.4. Pfizer has implemented policies and procedures commensurate with its current risk profile and shall review said policies setting out rules governing interactions with HCPs and Government Officials, engagement of Third Parties, including, where appropriate, due diligence ("Policies"), and its Policies mandate internal controls, including accounting controls, designed to ensure the making and keeping of fair and accurate books, records and accounts, on its operations

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around the world and apply worldwide to all its employees, subsidiaries, and Third Parties acting on its behalf;

7.6.5. Pfizer provides training to its officers, directors, employees and where appropriate, its other Representatives on its Policies;

7.6.6. Pfizer has an assurance program involving regular monitoring and auditing of activities to ensure compliance with its Policies and the adequacy of internal controls, and remediation of identified issues;

7.6.7. Pfizer has regularly reviewed its Policies as part of its internal processes of improvement, and, from time to time, has benchmarked it against the standards of the industry with the assistance of external counsel; and

7.6.8. Pfizer shall not use or employ in any capacity related to its activities under this Agreement any Representative of Pfizer or Third Party acting on behalf of Pfizer (in each case, as applicable) that has been debarred by any Regulatory Authority or is the subject of debarment proceedings by any Regulatory Authority and, in the course of the discovery or pre-clinical development of any Compound or Product, Pfizer shall not allow any Third Party acting on behalf of Pfizer (in each case, as applicable) to use any employee or consultant that is debarred by any Regulatory Authority or is the subject of debarment proceedings by any Regulatory Authority.

7.7. **Representation by Legal Counsel.** Each Party hereto represents that it has been represented by legal counsel in connection with this Agreement and acknowledges that it has participated in the drafting hereof. In interpreting and applying the terms and provisions of this Agreement, the Parties agree that no presumption will exist or be implied against the Party which drafted such terms and provisions.

7.8. **Disclaimer.** THE FOREGOING REPRESENTATIONS AND WARRANTIES OF EACH PARTY ARE IN LIEU OF ANY OTHER REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY SPECIFICALLY EXCLUDED AND DISCLAIMED. FURTHER, EACH PARTY HEREBY DISCLAIMS ANY REPRESENTATION OR WARRANTY THAT THE DEVELOPMENT AND COMMERCIALIZATION OF THE PRODUCTS WILL BE SUCCESSFUL OR, IF COMMERCIALIZED, WILL ACHIEVE ANY PARTICULAR SALES LEVEL.

**8. GOVERNMENT APPROVALS; TERM AND TERMINATION.**

8.1. **Government Approvals.** Each of Theravance and Pfizer will cooperate with the other Party to make all registrations, filings and applications, to give all notices and to obtain as soon as practicable all governmental or other consents, transfers, approvals, orders, qualifications authorizations, permits and waivers, if any, and to do all other things necessary or desirable for the consummation of the transactions as contemplated hereby.

8.2. **Term.** The term of this Agreement (the "**Term**") will commence on the Effective Date and extend on a country-by-country basis (in the Territory), unless this Agreement is terminated earlier in accordance with this Article 8, until the last to expire of any Royalty Term for any Product in such country in the Territory. Notwithstanding any provision of this Agreement to the contrary, upon expiration (but not termination) of this Agreement, Pfizer will retain the fully paid-up, perpetual, irrevocable royalty-free license to each Product as set forth in Section 3.4.2.

**8.3. Termination by Theravance.**

8.3.1. **Termination for Cause.** Theravance may terminate this Agreement for cause, at any time during the Term, by giving written notice to Pfizer in the event that Pfizer commits a material breach of its obligations under this Agreement and such material breach remains uncured: (a) [\*\*\*\*\*] for a material breach that is a failure of Pfizer to make an undisputed payment owed to Theravance under this Agreement, and (b) [\*\*\*\*\*] for all other material breaches, in each case measured from the date written notice of such material breach is given to Pfizer; [\*\*\*\*\*]. If the alleged material breach relates to non-payment of any amount due under this Agreement, the cure period will be tolled pending resolution of any bona fide dispute between the Parties as to whether such payment is due.

8.3.2. **Termination for Failure to Advance the Program.** If Pfizer has not, at any time during a period of [\*\*\*\*\*], either itself or by an Affiliate, Sublicensee or Third Party, in [\*\*\*\*\*] Development and/or Commercialization activities (including related Manufacturing activities) related to any Compounds or Products in the Field in the Territory, and the conduct of such activities was not prevented by events outside of the reasonable control of Pfizer, then such lack of activity will be deemed a material breach of this Agreement, Theravance will have the right to provide written notice to Pfizer for such breach, and the terms of Section 8.3.1 will apply, provided however that notwithstanding the cure periods set forth in Section 8.3.1, the cure period for such breach shall be [\*\*\*\*\*] from the date of such notice.

**8.4. Termination by Pfizer.**

8.4.1. **Termination for Convenience.** Upon at least [\*\*\*\*\*] prior written notice to Theravance, Pfizer may terminate this Agreement in its entirety, without cause, for any or no reason.

8.4.2. **Termination for Cause.** Pfizer may terminate this Agreement for cause in its entirety, at any time during the Term, by giving written notice to Theravance in the event that Theravance commits a material breach of its obligations under this Agreement and such material breach remains uncured for [\*\*\*\*\*], measured from the date written notice of such material breach is given to Theravance; provided, however, that if any breach is not reasonably curable within [\*\*\*\*\*] and if Theravance is making a bona fide effort to cure such breach, such termination will be delayed for a time period to be agreed by both Parties in order to permit Theravance a reasonable period of time to cure such breach.

8.5. **Termination for Compliance with the Law-related Breach.** Either Party may terminate this Agreement pursuant to Section 8.3.1 or Section 8.4.2, respectively, if (i) Theravance materially breaches any of its respective representations and warranties set forth in Section 7.3.7 through 7.3.13, (ii) Pfizer materially breaches any of its covenants set forth in 7.6, or (iii) or if either Party learns that improper payments are being or have been made to Government Officials by the other Party with respect to activities performed in connection with this Agreement; provided that in each case (i), (ii) or (iii), such breach or payment has a materially adverse impact on a Product or either Party's ability to perform its obligations under this Agreement. Further, in the event of such termination, the non-terminating Party shall not be entitled to any further payment, regardless of any activities undertaken or agreements with additional Third Parties entered into prior to termination, and the non-terminating Party shall be liable for damages or remedies as provided by Law. The termination right set forth in this Section 8.5 shall be the sole termination right with respect to breaches of the representations and warranties set forth in Section 7.3.7 through 7.3.13.

**8.6. Effects of Termination.**

**8.6.1. Effect of Termination.**

(a) **Termination for Cause by Theravance; Termination for Convenience by Pfizer.** In the event that Theravance terminates this Agreement or Pfizer terminates this Agreement for convenience pursuant to Section 8.4.1, the following will apply [\*\*\*\*\*]:

(i) **Cessation of Rights and Obligations.** Except as otherwise expressly provided herein, all rights and obligations of each Party hereunder will cease (including all rights and licenses and sublicenses granted by either Party to the other Party hereunder). For clarity, Pfizer will not be responsible for any financial obligations under any Additional Third Party Licenses after the effective date of termination.

(ii) **Termination Technology License.** Pfizer shall, and hereby does, grant to Theravance, effective as of the effective date of termination of this Agreement, a non-exclusive, perpetual, royalty-free (except as set forth in this Section 8.6.1(a)), freely sublicensable, transferable license under any all Reversion Technology to Develop, Commercialize, Manufacture and otherwise Exploit the Products in the Territory. In addition, [\*\*\*\*\*] of the effective date of termination, Pfizer shall provide to Theravance a copy of all Know-How included in the Reversion Technology.

(iii) **Ongoing Clinical Trials.** If, at the time of such termination, Pfizer or its Affiliates are conducting any Clinical Trials of a Product, then at Theravance's request, Pfizer agrees as soon as reasonably practical and without charge to Theravance for [\*\*\*\*\*] after the effective date of termination, after which Theravance would reimburse Pfizer for its activities [\*\*\*\*\*], to (1) provide assistance reasonably requested by Theravance in establishing Theravance or its designee as sponsor of any such ongoing Clinical Trials to Theravance (or its designee), including by transferring INDs (and their equivalents outside the United States) to Theravance or its designee, or (2) at Theravance's request, terminate any such ongoing Clinical Trial in a manner consistent with optimizing the safety and well-being of study subjects enrolled in such Clinical Trial; provided that, any decision to establish Theravance or its designee as sponsor or to terminate any such Clinical Trial [\*\*\*\*\*] and provided further that [\*\*\*\*\*];

(iv) **Regulatory Submissions.** Upon Theravance's written request to the extent delivered to Pfizer on or before the effective date of termination or within [\*\*\*\*\*] thereafter, Pfizer shall provide Theravance, within [\*\*\*\*\*] of such notice, with copies of all regulatory applications, submissions, notifications, material communications and correspondence, registrations, Regulatory Approvals and/or other filings to the extent relating to any Product made to, received from or otherwise conducted with a Regulatory Authority by or on behalf of Pfizer, its Affiliates or Sublicensees hereunder in order to Develop, Manufacture or Commercialize Products ("Transferred Regulatory Materials"). To the extent permissible under Applicable Law and commercially feasible, Pfizer shall transfer ownership to or assign to Theravance and shall provide Theravance with a right of reference with respect to such Transferred Regulatory Materials, as Theravance determines at its reasonable discretion, [\*\*\*\*\*]. In addition, upon Theravance's

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written request, Pfizer shall, [\*\*\*\*\*], provide to Theravance copies of all material related documentation to the extent relating to any Product and in the form it exists at the time, including material non-clinical, preclinical and clinical data that are held by or reasonably available to Pfizer, its Affiliates or Sublicensees; for clarity, Pfizer shall not be required to generate any new data or form of data in connection with this Section. The Parties shall discuss and establish appropriate arrangements with respect to safety data exchange for the Products.

(v) **Trademarks.** [\*\*\*\*\*] transfer and assignment from Pfizer, its Affiliates and Sublicensees as applicable, to Theravance of all Trademarks selected pursuant to Section 4.4.2 and any in-process applications for generic names for any Product, in each case to the extent any such marks and rights exist as of the effective date of termination.

(vi) **Inventory.** At Theravance's election, request and expense, Pfizer shall (i) use its Commercially Reasonable Efforts to, [\*\*\*\*\*], or other time period that is mutually agreed upon by the Parties, transfer to Theravance or its designee some or all inventory of Products (including all final product, bulk drug substance, intermediates, works-in-process, formulation materials, reference standards, drug product clinical reserve samples, packaged retention samples, and the like) then in Pfizer or its Affiliates's possession; provided that, Theravance will pay Pfizer at a price equal to [\*\*\*\*\*] of the price paid by Pfizer to a third party manufacturer for such transferred Products (if Manufactured by such third party manufacturer) or [\*\*\*\*\*] of Pfizer's fully burdened manufacturing cost (if Manufactured by Pfizer) and on other commercially reasonable terms and conditions to be agreed by the Parties. In addition, if a manufacturing process for any Product is or has been performed by a contract manufacturing organization, Pfizer will assign (or use its Commercially Reasonable Efforts to procure the assignment) to Theravance the applicable agreements with such contract manufacturing organization to the extent Pfizer is permitted to do so and to the extent relating solely to such Product. Pfizer may propose to supply such Product to Theravance at a mutually agreeable price for such Product, under the terms of a commercially reasonable supply agreement that may be negotiated in good faith by the Parties.

(vii) **Post-Termination Royalty to Pfizer.** [\*\*\*\*\*]

(b) **Termination for Cause by Pfizer.**

(i) In the event that Pfizer terminates this Agreement pursuant to section 8.4.2, all rights and obligations of each Party hereunder shall cease (including all non-perpetual, revocable rights and licenses granted by either Party to the other Party hereunder), except as otherwise expressly provided herein.

(ii) In the event that Pfizer has the right, but elects not, to terminate this Agreement pursuant to Section 8.4.2, Pfizer shall notify Theravance promptly and (a) [\*\*\*\*\*] Pfizer Diligence Obligations with regard to Developing and Commercializing Licensed Products shall be deemed met, [\*\*\*\*\*] (c) Pfizer's obligations to pay Development Milestones, Sales Milestones and royalties with respect to Net Sales of such Licensed Products shall be reduced by an amount equal to [\*\*\*\*\*] such amount to be paid in accordance with and subject to the other terms of this Agreement governing the payment of royalties [\*\*\*\*\*].



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8.6.2. **Accrued Rights.** Expiration or termination of this Agreement for any reason will be without prejudice to any right which will have accrued to the benefit of either Party prior to such termination, including damages arising from any breach under this Agreement. Expiration or termination of this Agreement will not relieve either Party from any obligation which is expressly indicated to survive such expiration or termination.

8.6.3. **Survival Period.** The following sections, together with any sections that expressly survive (including any perpetual licenses and sublicenses granted hereunder), will survive expiration or termination of this Agreement for any reason: Sections 1 (Definitions), [\*\*\*\*\*], 3.6.6 (Record Keeping), 3.6.7 (Audits), 3.6.8 (Underpayments/Overpayments), 3.6.9 (Confidentiality), 5.1 (Ownership of Intellectual Property), 6.1 (Confidentiality) (for the period of time set forth therein), 6.2 (Authorized Disclosure), 6.3 (SEC Filings and Other Disclosures), [\*\*\*\*\*], 8.6 (Effects of Termination), 8.7 (Provision for Insolvency), 9.1 (No Consequential Damages), 9.2 (Indemnification by Pfizer), 9.3 (Indemnification by Theravance), 9.4 (Procedure), 10 (Miscellaneous).

**8.7. Provision for Insolvency.**

8.7.1. **Termination Right.** Theravance will be deemed a “Debtor” under this Agreement if, at any time during the Term (a) a case is commenced by or against Theravance under the Bankruptcy Code, (b) Theravance files for or is subject to the institution of bankruptcy, reorganization, liquidation or receivership proceedings (other than a case under the Bankruptcy Code), (c) Theravance assigns all or a substantially of its assets for the benefit of creditors, (d) a receiver or custodian is appointed for Theravance’s business or (e) substantially all of Theravance’s business is subject to attachment or similar process; provided, however, that in the case of any involuntary case under the Bankruptcy Code, Theravance will not be deemed a Debtor if the case is dismissed within ninety (90) days after the commencement thereof. If Theravance is deemed a Debtor, then Pfizer may terminate this Agreement by providing written notice to Theravance. If Pfizer terminates this Agreement pursuant this Section 8.7.1, then all licenses granted to Pfizer under this Agreement will terminate as if such termination was a termination for cause pursuant to Section 8.4.2.

8.7.2. **Rights to Intellectual Property.** All rights and licenses now or hereafter granted by Theravance to Pfizer under or pursuant to any Section of this Agreement, including Sections 2.1 and Section 2.2 hereof, are rights to “intellectual property” (as defined in the Bankruptcy Code) The licenses granted to Pfizer under this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the Bankruptcy Code, licenses of rights to “intellectual property” as defined under Section 101(56) of the Bankruptcy Code. The Parties agree that Pfizer shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code in the event of a bankruptcy by Theravance.

8.7.3. **No Limitation of Rights.** All rights, powers and remedies of Pfizer provided in this Section 8.7 are in addition to and not in substitution for any and all other rights, powers and remedies now or hereafter existing at Law or in equity (including the Bankruptcy Code) in the event of the commencement of a case under the Bankruptcy Code involving Theravance.

**9. LIMITATION ON LIABILITY, INDEMNIFICATION AND INSURANCE.**

9.1. [\*\*\*\*\*] Except with respect to liability arising from a breach of Section 6, from any willful misconduct or intentionally wrongful act, or to the extent such Party may be required to indemnify

the other Party under this Article 9, in no event will either Party or its Representatives be liable under this Agreement for any [\*\*\*\*\*].

**9.2. Indemnification by Pfizer.**

[\*\*\*\*\*]

**9.3. Indemnification by Theravance.** [\*\*\*\*\*]

**9.4. Procedure.**

9.4.1. **Notice.** Each Party will notify the other Party in writing in the event it becomes aware of a claim for which indemnification may be sought hereunder. In the event that any Third Party asserts a claim or other proceeding (including any governmental investigation) with respect to any matter for which a Party (the “Indemnified Party”) is entitled to indemnification hereunder (a “Third Party Claim”), then the Indemnified Party will promptly notify the Party obligated to indemnify the Indemnified Party (the “Indemnifying Party”) thereof; provided, however, that no delay on the part of the Indemnified Party in notifying the Indemnifying Party will relieve the Indemnifying Party from any obligation hereunder unless (and then only to the extent that) the Indemnifying Party is prejudiced thereby.

9.4.2. **Control.** Subject to each Party’s right to control any actions described in Section 5.2.7 (even where the other Party is the Indemnifying Party), the Indemnifying Party will have the right, exercisable by notice to the Indemnified Party within ten Business Days after receipt of notice from the Indemnified Party of the commencement of or assertion of any Third Party Claim, to assume direction and control of the defense, litigation, settlement, appeal or other disposition of the Third Party Claim (including the right to settle the claim solely for monetary consideration) with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party. The Indemnifying Party will be entitled, at its sole cost and expense, to assume direction and control of such defense, with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party. During such time as the Indemnifying Party is controlling the defense of such Third Party Claim, the Indemnified Party will cooperate, and will cause its Affiliates and agents to cooperate upon request of the Indemnifying Party, in the defense or prosecution of the Third Party Claim, including by furnishing such records, information and testimony and attending such conferences, discovery proceedings, hearings, trials or appeals as may reasonably be requested by the Indemnifying Party. In the event that the Indemnifying Party does not notify the Indemnified Party of the Indemnifying Party’s intent to defend any Third Party Claim within ten Business Days after notice thereof, the Indemnified Party may (without further notice to the Indemnifying Party) undertake the defense thereof with counsel of its choice and at the Indemnifying Party’s expense (including reasonable, out-of-pocket attorneys’ fees and costs and expenses of enforcement or defense). The Indemnifying Party or the Indemnified Party, as the case may be, will have the right to join in (including the right to conduct discovery, interview and examine witnesses and participate in all settlement conferences), but not control, at its own expense, the defense of any Third Party Claim that the other party is defending as provided in this Agreement.

9.4.3. **Settlement.** The Indemnifying Party will not, without the prior written consent of the Indemnified Party, enter into any compromise or settlement that commits the Indemnified Party to take, or to forbear to take, any action. The Indemnified Party will have the sole and exclusive right to settle any Third Party Claim, on such terms and conditions as it deems reasonably appropriate, to the extent such Third Party Claim involves equitable or other non-monetary relief to be provided solely by the Indemnified Party, but will not have the right to settle such Third Party Claim to the extent such Third Party

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Claim involves monetary damages without the prior written consent of the Indemnifying Party. Each of the Indemnifying Party and the Indemnified Party will not make any admission of liability in respect of any Third Party Claim without the prior written consent of the other party, and the Indemnified Party will use reasonable efforts to mitigate Liabilities arising from such Third Party Claim.

9.5. **Insurance.** Each Party further agrees to obtain and maintain, during the Term, commercial general liability insurance, including products liability insurance (or clinical trials insurance, if applicable), with minimum “A-” A.M. Best rated insurance carriers to cover its indemnification obligations under Section 9.2 or Section 9.3, as applicable, in each case with limits of not less than [\*\*\*\*\*] per occurrence and in the aggregate. All deductibles and retentions will be the responsibility of the named insured. Products liability coverage shall be maintained for three years following termination of this Agreement. To the extent of its culpability or negligence, all coverages of a Party will be primary and non-contributing with any similar insurance, carried by the other Party. Notwithstanding any provision of this Section 9.5 to the contrary, Pfizer may meet its obligations under this Section 9.5 through self-insurance. Neither Party’s insurance will be construed to create a limit of liability with respect to its indemnification obligations under this Article 9.

**10. MISCELLANEOUS.**

10.1. **Assignment.** Neither this Agreement nor any interest hereunder will be assignable by a Party without the prior written consent of the other Party, except as follows: (a) subject to the provisions of Section 10.2, as applicable, a Party may assign its rights and obligations under this Agreement by way of sale of itself or the sale of the portion of its business to which this Agreement relates, through merger, sale of assets and/or sale of stock or ownership interest, provided that the assignee will expressly agree to be bound by such Party’s obligations under this Agreement and that such sale is not primarily for the benefit of its creditors, (b) such Party may assign its rights and obligations under this Agreement to any of its Affiliates, provided that the assignee will expressly agree to be bound by such Party’s obligations under this Agreement and that such Party will remain liable for all of its rights and obligations under this Agreement, and (c) Theravance may assign any or all of its rights to receive payment(s) under this Agreement, provided that [\*\*\*\*\*]. In addition, Pfizer may assign its rights and obligations under this Agreement to a Third Party where Pfizer or its Affiliate is required, or makes a good faith determination based on advice of counsel, to divest a Product in order to comply with Law or the order of any Governmental Authority as a result of a merger or acquisition, provided that the assignee will expressly agree to be bound by Pfizer’s obligations under this Agreement, and provided further that, if such Third Party is a Competing Company then such assignment may occur only with the consent of Theravance, not to be unreasonably withheld. Each Party will promptly notify the other Party of any assignment or transfer under the provisions of this Section 10.1. This Agreement will be binding upon the successors and permitted assigns of the Parties and the name of a Party appearing herein will be deemed to include the names of such Party’s successors and permitted assigns to the extent necessary to carry out the intent of this Agreement. Any assignment not in accordance with this Section 10.1 will be void. For purposes of this Section 10.1, “Competing Company” means a Person that, as measured at the time of a Change of Control, is Developing a competing product in Clinical Trials, in animal studies or other in-vivo Development activities or Commercializing a competing product.

10.2. **Change of Control of Theravance.** Theravance will notify Pfizer in writing [\*\*\*\*\*] following the entering into of a definitive agreement with respect to a Change of Control of Theravance.

10.3. **Force Majeure.** Each Party will be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented by force majeure (defined below) and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse

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will be continued so long as the condition constituting force majeure continues and the nonperforming Party takes Commercially Reasonable Efforts to remove the condition. For purposes of this Agreement, "force majeure" will include conditions beyond the control of the Parties, including an act of God, voluntary or involuntary compliance with any regulation, Law or order of any government, war, act of terror, civil commotion, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by earthquake, storm or like catastrophe.

10.4. **Interpretation.** Except where the context expressly requires otherwise, (a) the use of any gender herein will be deemed to encompass references to either or both genders, and the use of the singular will be deemed to include the plural (and vice versa), (b) the words "include", "includes" and "including" will be deemed to be followed by the phrase "without limitation", (c) the word "will" will be construed to have the same meaning and effect as the word "shall", (d) any definition of or reference to any agreement, instrument or other document herein will be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (e) any reference herein to any Person will be construed to include the Person's successors and assigns, (f) the words "herein", "hereof" and "hereunder", and words of similar import, will be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (g) all references herein to Sections, Exhibits or Schedules will be construed to refer to Sections, Exhibits or Schedules of this Agreement, and references to this Agreement include all Exhibits and Schedules hereto, (h) the word "notice" means notice in writing (whether or not specifically stated) and will include notices, consents, approvals and other written communications contemplated under this Agreement, (i) provisions that require that a Party, the Parties or any committee hereunder "agree," "consent" or "approve" or the like will require that such agreement, consent or approval be specific and in writing, whether by written agreement, letter, approved minutes or otherwise (but excluding e-mail (except where explicitly otherwise stated) and instant messaging), (j) references to any specific law, rule or regulation, or article, section or other division thereof, will be deemed to include the then-current amendments thereto or any replacement or successor law, rule or regulation thereof, and (k) the term "or" will be interpreted in the inclusive sense commonly associated with the term "and/or."

10.5. **Notices.** Any notice or notification required or permitted to be provided pursuant to the terms and conditions of this Agreement (including any notice of force majeure, breach, termination, change of address, etc.) will be in writing and will be deemed given upon receipt if delivered personally or by facsimile transmission (receipt verified), five days after deposited in the mail if mailed by registered or certified mail (return receipt requested) postage prepaid, or on the next Business Day if sent by overnight delivery using a nationally recognized express courier service and specifying next Business Day delivery (receipt verified), to the Parties at the following addresses or facsimile numbers (or at such other address or facsimile number for a Party as will be specified by like notice, provided, however, that notices of a change of address will be effective only upon receipt thereof):

All correspondence to Pfizer will be addressed as follows:

Pfizer Inc.  
Notices: WRD Business Development  
235 East 42nd Street  
New York, NY 10017  
Attn.: WRDBD Contract Notice

with a copy to:

Pfizer Inc.

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Notices: Pfizer Legal Division  
235 East 42nd Street  
New York, NY 10017  
Attn.: Chief Counsel, R&D

To help expedite Pfizer's awareness and response, copies of notices may be provided to Pfizer by email but must be supplemented by one of the following methods: (a) personal delivery, (b) first class certified mail with return receipt requested, or (c) next-day delivery by major international courier, with confirmation of delivery. Electronic copies may be sent via email to [\*\*\*\*\*].

All correspondence to Theravance will be addressed as follows:

Theravance Biopharma Ireland Limited  
Connaught House  
1 Burlington Road  
Dublin 4  
D04 C5Y6  
Ireland

Attn: President

with a copy to:

Theravance Biopharma US, Inc.  
901 Gateway Blvd.  
South San Francisco, CA 94080

Attn: General Counsel

10.6. **Amendment.** No amendment, modification or supplement of any provision of this Agreement will be valid or effective unless made in writing and signed by a duly authorized officer of each Party.

10.7. **Waiver.** No provision of this Agreement will be waived by any act, omission or knowledge of a Party or its agents or employees except by an instrument in writing expressly waiving such provision and signed by a duly authorized officer of the waiving Party. The waiver by either of the Parties of any breach of any provision hereof by the other Party will not be construed to be a waiver of any succeeding breach of such provision or a waiver of the provision itself.

10.8. **Severability.** If any clause or portion thereof in this Agreement is for any reason held to be invalid, illegal or unenforceable, the same will not affect any other portion of this Agreement, as it is the intent of the Parties that this Agreement will be construed in such fashion as to maintain its existence, validity and enforceability to the greatest extent possible. In any such event, this Agreement will be construed as if such clause or portion thereof had never been contained in this Agreement, and there will be deemed substituted therefor such provision as will most nearly carry out the intent of the Parties as expressed in this Agreement to the fullest extent permitted by applicable Law.

10.9. **Descriptive Headings.** The descriptive headings of this Agreement are for convenience only and will be of no force or effect in construing or interpreting any of the provisions of this Agreement.

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10.10. **Global Trade Control Laws.** The Parties acknowledge that certain activities covered by or performed under this Agreement may be subject to laws, regulations or orders regarding economic sanctions, import controls or export controls (“Global Trade Control Laws”). Each of the Parties will perform all activities under this Agreement in compliance with all applicable Global Trade Control Laws. Furthermore, with respect to the activities performed under this Agreement, each of the Parties represents, warrants and covenants that:

10.10.1. Each Party will not, for activities under this Agreement, (i) engage in any such activities in a Restricted Market; (ii) involve individuals ordinarily resident in a Restricted Market; or (iii) include companies, organizations, or Governmental Entities from or located in a Restricted Market. “Restricted Market” for purposes of this Agreement means the Crimean Peninsula, Cuba, the Donbass Region, Iran, North Korea, Sudan, and Syria, or any other country or region sanctioned by the United States or European Union.

10.10.2. Each Party represents and warrants that it is not a Restricted Party and is not owned or controlled by a Restricted Party. With respect to activities performed under this Agreement, neither Party will engage or delegate to any Restricted Parties for any activities under this Agreement. Each Party will screen all relevant Third Parties involved by such Party in the activities under this Agreement under the relevant Restricted Party Lists. “Restricted Parties” for purposes of this Agreement means any individual or entity on any of the following “Restricted Party Lists”: the list of sanctioned entities maintained by the United Nations; the Specially Designated Nationals List and the Sectoral Sanctions Identifications List of the U.S. Treasury Department’s Office of Foreign Assets Control; the U.S. Denied Persons List, the U.S. Entity List, and the U.S. Unverified List of the U.S. Department of Commerce; entities subject to restrictive measures and the Consolidated List of Persons, Groups and Entities Subject to E.U. Financial Sanctions, as implemented by the E.U. Common Foreign & Security Policy; the List of Excluded Individuals / Entities published by the U.S. Health and Human Services’ Office of Inspector General; any lists of prohibited or debarred parties established under the U.S. Federal Food Drug and Cosmetic Act; the list of parties suspended or debarred from contracting with the U.S. government; and similar lists of restricted parties maintained by the Governmental Authorities of the countries that have jurisdiction over the activities conducted under this Agreement.

10.10.3. Neither Party will knowingly transfer to the other Party any goods, software, technology or services that are (i) controlled under the U.S. International Traffic in Arms Regulations or at a level other than EAR99 under the U.S. Export Administration Regulations; or (ii) specifically identified as an E.U. Dual Use Item or on an applicable export control list of another country.

10.11. **Dispute Resolution.** If any dispute or disagreement arises between Pfizer and Theravance in respect of this Agreement, they will follow the following procedures in an attempt to resolve the dispute or disagreement:

10.11.1. The Party claiming that such a dispute exists will give notice in writing (“Notice of Dispute”) to the other Party of the nature of the dispute.

10.11.2. Within [\*\*\*\*\*] of receipt of a Notice of Dispute and in advance of any meeting pursuant to Section 10.11.3, the receiving Party will provide a written response to the other Party’s claims regarding the dispute.

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10.11.3. Within [\*\*\*\*\*] of receipt of a Notice of Dispute, the Vice President, Inflammation & Immunology, of Pfizer and the Chief Executive Officer of Theravance will meet at a mutually agreed-upon time and location for the purpose of resolving such dispute.

Notwithstanding any provision of this Agreement to the contrary, either Party may immediately initiate litigation in any court of competent jurisdiction seeking any remedy in equity, including the issuance of a preliminary, temporary or permanent injunction, to preserve or enforce its rights under this Agreement, provided that neither Party may initiate litigation in any court of competent jurisdiction seeking any remedy at law without first complying with the dispute resolution process set forth in this Section 10.11. The provisions of this Section 10.11 will survive for five years from the date of termination or expiration of this Agreement.

10.12. **Governing Law.** This Agreement is governed by, and all disputes arising under or in connection with this Agreement shall be resolved in accordance with, laws of the State of New York, without regard to conflict of law principles thereof.

10.13. **Consent to Jurisdiction and Venue.** Each Party to this Agreement hereby (a) irrevocably submits to the exclusive jurisdiction and venue of the state courts of the State of New York or the United States District Court for the Southern District of New York (collectively, the “Courts”), for the purpose of any and all actions, suits or proceedings arising in whole or in part out of, related to, based upon or in connection with this Agreement or the subject matter hereof or such award (other than appeals therefrom), (b) agrees not to raise any objection at any time to the laying or maintaining of the venue of any such action, suit or proceeding in any of such Courts, irrevocably waives any claim that such action, suit or other proceeding has been brought in an inconvenient forum and further irrevocably waives the right to object, with respect to such action, suit or other proceeding, that such Courts do not have any jurisdiction over such Party. In any such action, the courts of New York shall have exclusive jurisdiction over any action brought to enforce this Agreement, and each of the Parties hereto irrevocably: (a) submits to such exclusive jurisdiction for such purpose; (b) waives any objection which it may have at any time to the laying of venue of any proceedings brought in such courts; (c) waives any claim that such proceedings have been brought in an inconvenient forum; and (d) further waives the right to object with respect to such proceedings that any such court does not have jurisdiction over such Party.

10.14. **Entire Agreement.** This Agreement constitutes and contains the complete, final and exclusive understanding and agreement of the Parties and cancels and supersedes any and all prior negotiations, correspondence, understandings and agreements, whether oral or written, between the Parties respecting the subject matter hereof and thereof, including that certain Confidential Disclosure Agreement between Theravance Biopharma US, Inc. and Pfizer dated [\*\*\*\*\*], that certain Confidential Disclosure Agreement between Theravance Biopharma US, Inc. and Pfizer dated [\*\*\*\*\*] (the “Confidential Disclosure Agreements”), which are hereby terminated effective as of the Effective Date, and that certain Confidential Disclosure Agreement between Theravance Biopharma US, Inc., Pfizer and [\*\*\*\*\*] Dated [\*\*\*\*\*], provided that the Confidential Disclosure Agreements will continue to govern the treatment of Confidential Information disclosed by the Parties prior to the Effective Date in accordance with its terms.

10.15. **Independent Contractors.** Both Parties are independent contractors under this Agreement. Nothing herein contained will be deemed to create an employment, agency, joint venture or partnership relationship between the Parties hereto or any of their agents or employees, or any other legal arrangement that would impose liability upon one Party for the act or failure to act of the other Party. Neither Party will have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, the other Party, or to bind the other Party in any respect whatsoever.

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10.16.           **Counterparts; Electronic Signatures.** This Agreement may be executed in two (2) counterparts, each of which will be an original and both of which will constitute together the same document. Counterparts may be signed and delivered by facsimile or digital (e.g., PDF) file, each of which will be binding when received by the applicable Party. The Parties acknowledge and agree that the exchange of electronic signatures will have the same legal validity as the Parties' signatures would have if signed in hard copy form.

10.17.           **No Third Party Rights or Obligations.** Except as expressly set forth herein, no provision of this Agreement will be deemed or construed in any way to result in the creation of any rights or obligation in any Person not a Party to this Agreement. However, Pfizer may decide, in its sole discretion, to use one or more of its Affiliates to perform its obligations and duties hereunder, provided that Pfizer will remain liable hereunder for the performance by any such Affiliates of any such obligations.

10.18.           **No Jury Trial.** THE PARTIES EXPRESSLY WAIVE AND FOREGO ANY RIGHT TO TRIAL BY JURY.

*(Signature page follows.)*



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IN WITNESS WHEREOF, authorized representatives of the Parties have duly executed this Agreement as of the Effective Date to be effective as of the Effective Date.

**PFIZER INC.**

**THERAVANCE BIOPHARMA IRELAND  
LIMITED**

By \_\_\_\_\_

By \_\_\_\_\_

Name:

Name:

Title:

Title:

*[Signature Page to License Agreement]*

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**Exhibit A**  
**PFIZER ANTI-BRIBERY AND ANTI-CORRUPTION PRINCIPLES**

Pfizer has a longstanding corporate policy that prohibits colleagues or anyone acting on our behalf from providing any payment or benefit to any person or entity in order to improperly influence a government official or to gain an unfair business advantage. Pfizer is committed to performing with integrity, and acting ethically and legally in accordance with all applicable laws and regulations, including, but not limited to, anti-bribery and anti-corruption laws. We expect the same commitment from the consultants, agents, representatives or other companies and individuals acting on our behalf (“Business Associates”), as well as those acting on behalf of Business Associates, in connection with work for Pfizer.

**Bribery of Government Officials**

Most countries have laws that forbid making, offering or promising any payment or anything of value (directly or indirectly) to a government official when the payment is intended to influence an official act or decision to award or retain business. Under Pfizer’s policies, “government official” is broadly interpreted and includes: (i) any elected or appointed government official (e.g., a member of a ministry of health); (ii) any employee or person acting for or on behalf of a government official, agency, or enterprise performing a governmental function; (iii) any political party, candidate for public office, officer, employee, or person acting for or on behalf of a political party or candidate for public office; or (iv) an employee or person acting for or on behalf of a public international organization (e.g., the United Nations). “Government” is meant to include all levels and subdivisions of governments (i.e., local, regional, or national and administrative, legislative, or executive). Because this definition of “government official” is so broad, it is likely that Business Associates will interact with a government official in the ordinary course of their business on behalf of Pfizer. For example, doctors employed by government-owned hospitals would be considered “government officials” under Pfizer’s policies.

The Foreign Corrupt Practices Act of 1977 (the “FCPA”) prohibits making, promising, or authorizing the making of a payment or providing anything of value to a non-U.S. government official to improperly or corruptly induce that official to make any governmental act or decision to assist a company in obtaining or retaining business, or to otherwise obtain an improper advantage. The FCPA also prohibits a company or person from using another company or individual to engage in any of the foregoing activities. As a U.S. company, Pfizer must comply with the FCPA and could be held liable as a result of acts committed anywhere in the world by a Business Associate.

**Anti-Bribery and Anti-Corruption Principles Governing Interactions with Governments and Government Officials**

In conducting Pfizer-related activities, Business Associates must communicate and abide by the following principles with regard to their interactions with governments and government officials:

- Business Associates, and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly make, promise, or authorize the making of a corrupt payment or provide anything of value to any government official to induce that government official to make any governmental act or decision to help Pfizer obtain or retain business. Business Associates, and those acting on their behalf in connection with work for Pfizer, may never make a payment to or offer a government official any item or benefit, regardless of value, as an improper inducement for such government official to approve, reimburse, prescribe, or purchase a Pfizer product, to influence the outcome of a clinical trial, or otherwise improperly to benefit Pfizer’s business activities.
  
  - Business Associates, and those acting on their behalf in connection with work for Pfizer, need to understand whether local laws, regulations, or operating procedures (including requirements imposed by government entities such as government-owned hospitals or research institutions) impose any limits, restrictions, or disclosure requirements on compensation, financial support, donations, or gifts that may be provided to government officials. Business Associates, and those acting on their behalf in
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connection with work for Pfizer, must take into account and comply with any applicable restrictions in conducting their Pfizer-related activities. If a Business Associate is uncertain as to the meaning or applicability of any identified limits, restrictions, or disclosure requirements with respect to interactions with government officials, that Business Associate should consult with his or her primary Pfizer contact before undertaking their activities.

- Business Associates, and those acting on their behalf in connection with work for Pfizer, are not permitted to offer facilitation payments. A “facilitation payment” is a nominal, unofficial payment to a government official for the purpose of securing or expediting the performance of a routine, non-discretionary governmental action. Examples of facilitation payments include payments to expedite the processing of licenses, permits or visas for which all paperwork is in order. In the event that a Business Associate, or someone acting on their behalf in connection with work for Pfizer, receives or becomes aware of a request or demand for a facilitation payment or bribe in connection with work for Pfizer, the Business Associate shall report such request or demand promptly to his or her primary Pfizer contact before taking any further action.

### **Commercial Bribery**

Bribery and corruption can also occur in non-government, business to business relationships. Most countries have laws which prohibit offering, promising, giving, requesting, receiving, accepting, or agreeing to accept money or anything of value in exchange for an improper business advantage. Examples of prohibited conduct could include, but are not limited to, the provision of inappropriate gifts or hospitality, kickbacks, or investment opportunities offered to improperly induce the purchase of goods or services. Pfizer colleagues are not permitted to offer, give, solicit or accept bribes, and we expect our Business Associates, and those acting on their behalf in connection with work for Pfizer, to abide by the same principles.

### **Anti-Bribery and Anti-Corruption Principles Governing Interactions with Private Parties and Pfizer Colleagues**

In conducting Pfizer-related activities, Business Associates must communicate and abide by the following principles with regard to their interactions with private parties and Pfizer colleagues:

- Business Associates, and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly make, promise, or authorize the making of a corrupt payment or provide anything of value to any person to induce that person to provide an unlawful business advantage for Pfizer.

- Business Associates, and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly, solicit, agree to accept, or receive a payment or anything of value as an improper inducement in connection with their business activities performed for Pfizer.

- Pfizer colleagues are not permitted to receive gifts, services, perks, entertainment, or other items of more than token or nominal monetary value from Business Associates, and those acting on their behalf in connection with work for Pfizer. Moreover, gifts of nominal value are only permitted if they are received on an infrequent basis and only at appropriate occasions.

### **Reporting Suspected or Actual Violations**

In conducting Pfizer-related activities, Business Associates, and those acting on behalf in connection with work for Pfizer, are expected to raise concerns related to potential violations of these International Anti-Bribery and Anti-Corruption Principles or the law. Such reports can be made to a Business Associate’s primary point of contact at Pfizer, or if an Associate prefers, to Pfizer’s Compliance Group, by e-mail at [corporate.compliance@pfizer.com](mailto:corporate.compliance@pfizer.com) or by phone at 1-212-733-3026.

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**Schedule 1.14**

**Compounds**

**[\*\*\*\*\*]**

*[End of Schedule 1.14]*

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**Schedule 3.4.1**

**Marginal Royalty Rate Calculation Example**

By way of example only, if Net Sales by Pfizer, its Affiliates or its Sublicensees in the Territory during a Pfizer Year are \$3.2 billion, then the royalties payable by Pfizer under Section 3.4.1 during such Pfizer Year would be calculated as follows:

Royalty payable for applicable Pfizer Year

[\*\*\*\*\*]

[\*\*\*\*\*] Certain identified information denoted with an asterisk have been omitted from this exhibit because it is not material and would likely cause competitive harm to the Registrant if publicly disclosed.

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**Schedule 2.6**

**Technology Transfer**

**[\*\*\*\*\*]**

[\*\*\*\*\*] Certain identified information denoted with an asterisk have been omitted from this exhibit because it is not material and would likely cause competitive harm to the Registrant if publicly disclosed.

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**Schedule 6.4.1**

**Theravance Press Release**

*[attached]*

[\*\*\*\*\*] Certain identified information denoted with an asterisk have been omitted from this exhibit because it is not material and would likely cause competitive harm to the Registrant if publicly disclosed.

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## **Theravance Biopharma and Pfizer Inc. Enter Global License Agreement for Skin-Targeted, Locally-Acting Pan-Janus Kinase (JAK) Inhibitor Program**

*Topically-Applied, Skin-Selective Pan-JAK Inhibitors Specifically Designed to Target Pro-Inflammatory Pathways with Minimal Systemic Exposure*

**DUBLIN, IRELAND AND NEW YORK – December 23, 2019** – Theravance Biopharma Ireland Limited, a subsidiary of Theravance Biopharma, Inc. (NASDAQ: TBPH) (“Theravance Biopharma”) and Pfizer Inc. (NYSE: PFE) (“Pfizer”) today announced that the companies have entered into a global license agreement for Theravance Biopharma’s preclinical program for skin-targeted, locally-acting pan-Janus kinase (JAK) inhibitors that can be rapidly metabolized. The compounds in this program target validated pro-inflammatory pathways and are specifically designed to possess skin-selective activity with minimal systemic exposure.

Under the terms of the agreement, Theravance Biopharma will receive an upfront cash payment of \$10 million and will be eligible to receive up to an additional \$240 million in development and sales milestone payments from Pfizer. In addition, Theravance Biopharma will be eligible to receive royalties on worldwide net sales of any potential products emerging from the program.

“We believe that this global agreement with Pfizer provides further validation of our unique expertise in the discovery and development of innovative, organ-selective JAK inhibitors. As a clear global leader in the field of JAK inhibition, Pfizer is ideally positioned to advance this program and unlock its therapeutic potential,” said Rick E Winningham, chief executive officer of Theravance Biopharma.

“Theravance Biopharma’s skin-targeted JAK inhibitor program will nicely complement Pfizer’s portfolio of preclinical and clinical-stage molecules, which have unique selectivity profiles and are matched to conditions in which we believe they have the greatest potential to address unmet need,” said Michael Vincent, chief scientific officer, Inflammation & Immunology, Pfizer. “Topical JAK inhibitors that can be rapidly metabolized have potential to reach more patients with mild-to-moderate skin conditions, for whom treatment is currently limited.”

### ***About Organ-Selective Pan-Janus (JAK) Kinase Inhibition***

JAK inhibitors function by inhibiting the activity of one or more of the Janus kinase family of enzymes (JAK1, JAK2, JAK3, TYK2) that play a key role in cytokine signaling. Inhibiting these JAK enzymes interferes with the JAK/STAT signaling pathway and, in turn, modulates the activity of a wide range of pro-inflammatory cytokines. JAK inhibitors are currently approved for the treatment of a range of inflammatory diseases including rheumatoid arthritis, psoriatic arthritis, myelofibrosis, and ulcerative colitis.

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## **About Theravance Biopharma**

Theravance Biopharma, Inc. (“Theravance Biopharma”) is a diversified biopharmaceutical company primarily focused on the discovery, development and commercialization of organ-selective medicines. Our purpose is to create transformational medicines to improve the lives of patients suffering from serious illnesses. Our research is focused in the areas of inflammation and immunology.

In pursuit of our purpose, we apply insights and innovation at each stage of our business and utilize our internal capabilities and those of partners around the world. We apply organ-selective expertise to biologically compelling targets to discover and develop medicines designed to treat underserved localized diseases and to limit systemic exposure, in order to maximize patient benefit and minimize risk. These efforts leverage years of experience in developing lung-selective medicines to treat respiratory disease, including FDA-approved YUPELRI® (revedfenacin) inhalation solution indicated for the maintenance treatment of patients with chronic obstructive pulmonary disease (COPD). Our pipeline of internally discovered programs is targeted to address significant patient needs.

We have an economic interest in potential future payments from Glaxo Group Limited or one of its affiliates (GSK) pursuant to its agreements with Innoviva, Inc. relating to certain programs, including TRELEGY ELLIPTA.

For more information, please visit [www.theravance.com](http://www.theravance.com).

THERAVANCE® and the Cross/Star logo are registered trademarks of the Theravance Biopharma group of companies. YUPELRI® is a United States registered trademark of Mylan Specialty L.P. Trademarks, trade names or service marks of other companies appearing on this press release are the property of their respective owners.

*This press release contains "forward-looking" statements as that term is defined in the Private Securities Litigation Reform Act of 1995 regarding, among other things, statements relating to goals, plans, objectives, expectations and future events. Theravance Biopharma intends such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. Examples of such statements include statements relating to: the Company's strategies, plans and objectives, the Company's regulatory strategies and timing of clinical studies (including the data therefrom), the potential characteristics, benefits and mechanisms of action of the Company's product and product candidates, the potential that the Company's research programs will progress product candidates into the clinic, the Company's expectations for product candidates through development, potential regulatory approval and commercialization (including their differentiation from other products or potential products), product sales or profit share revenue and the Company's expectations for its 2019 operating loss, excluding share-based compensation. These statements are based on the current estimates and assumptions of the management of Theravance Biopharma as of the date of the press release and are subject to risks, uncertainties, changes in circumstances, assumptions and other factors that may cause the actual results of Theravance Biopharma to be materially different from those reflected in the forward-looking statements. Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, among others, risks related to: potential future disagreements with*

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*Innoviva, Inc. and TRC LLC, the uncertainty of arbitration and litigation and the possibility that an arbitration award or litigation result could be adverse to the Company, delays or difficulties in commencing, enrolling or completing clinical studies, the potential that results from clinical or non-clinical studies indicate the Company's compounds or product candidates are unsafe or ineffective, risks that product candidates do not obtain approval from regulatory authorities, the feasibility of undertaking future clinical trials for our product candidates based on policies and feedback from regulatory authorities, dependence on third parties to conduct clinical studies, delays or failure to achieve and maintain regulatory approvals for product candidates, risks of collaborating with or relying on third parties to discover, develop, manufacture and commercialize products, and risks associated with establishing and maintaining sales, marketing and distribution capabilities with appropriate technical expertise and supporting infrastructure. Other risks affecting Theravance Biopharma are described under the heading "Risk Factors" contained in Theravance Biopharma's Form 10-Q filed with the Securities and Exchange Commission (SEC) on November 8, 2019 and Theravance Biopharma's other filings with the SEC. In addition to the risks described above and in Theravance Biopharma's filings with the SEC, other unknown or unpredictable factors also could affect Theravance Biopharma's results. No forward-looking statements can be guaranteed and actual results may differ materially from such statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Theravance Biopharma assumes no obligation to update its forward-looking statements on account of new information, future events or otherwise, except as required by law.*

### **Pfizer Inc.: Breakthroughs that Change Patients' Lives**

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products, including innovative medicines and vaccines. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time. Consistent with our responsibility as one of the world's premier innovative biopharmaceutical companies, we collaborate with health care providers, governments and local communities to support and expand access to reliable, affordable health care around the world. For more than 150 years, we have worked to make a difference for all who rely on us. We routinely post information that may be important to investors on our website at [www.pfizer.com](http://www.pfizer.com). In addition, to learn more, please visit us on [www.pfizer.com](http://www.pfizer.com) and follow us on Twitter at @Pfizer and @Pfizer\_News, LinkedIn, YouTube and like us on Facebook at [Facebook.com/Pfizer](https://www.facebook.com/Pfizer).

**PFIZER DISCLOSURE NOTICE:** *The information contained in this release is as of December 23, 2019. Pfizer assumes no obligation to update forward-looking statements contained in this release as the result of new information or future events or developments.*

*This release contains forward-looking information about a global license agreement between Pfizer and Theravance Biopharma, and Theravance Biopharma's program for skin-targeted, locally-acting pan-Janus kinase (JAK) inhibitors that can be rapidly metabolized, including its potential benefits, that involves substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Risks and uncertainties include, among other things, the uncertainties inherent in research and development, including the ability to meet anticipated clinical endpoints, commencement and/or*

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completion dates for our clinical trials, regulatory submission dates, regulatory approval dates and/or launch dates, as well as the possibility of unfavorable new clinical data and further analyses of existing clinical data; the risk that clinical trial data are subject to differing interpretations and assessments by regulatory authorities; whether regulatory authorities will be satisfied with the design of and results from our clinical studies; whether and when drug applications may be filed in any jurisdictions for any of the product candidates with Theravance Biopharma's JAK inhibitors; whether and when any such applications may be approved by regulatory authorities, which will depend on myriad factors, including making a determination as to whether the product's benefits outweigh its known risks and determination of the product's efficacy and, if approved, whether any of the product candidates with Theravance Biopharma's JAK inhibitors will be commercially successful; decisions by regulatory authorities impacting labeling, manufacturing processes, safety and/or other matters that could affect the availability or commercial potential of any of the product candidates with Theravance Biopharma's JAK inhibitors; and competitive developments.

A further description of risks and uncertainties can be found in Pfizer's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Information and Factors That May Affect Future Results", as well as in its subsequent reports on Form 8-K, all of which are filed with the U.S. Securities and Exchange Commission and available at [www.sec.gov](http://www.sec.gov) and [www.pfizer.com](http://www.pfizer.com).

*Contact Information:*

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**Schedule 7.3.3**

**Theravance Patent Rights Existing as of the Effective Date**

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*[End of Schedule 7.3.3]*

[\*\*\*\*\*] Certain identified information denoted with an asterisk have been omitted from this exhibit because it is not material and would likely cause competitive harm to the Registrant if publicly disclosed.

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**NOTE PURCHASE AGREEMENT**

**dated February 21, 2020**

**among**

**THERAVANCE BIOPHARMA R&D, INC.,**

**TRIPLE ROYALTY SUB II LLC**

**and**

**THE PURCHASER NAMED HEREIN**

**\$400,000,000 TRIPLE II 9.5% FIXED RATE TERM NOTES DUE 2035**

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# NOTE PURCHASE AGREEMENT

February 21, 2020

To the Purchaser named in Schedule 1

Ladies and Gentlemen:

Triple Royalty Sub II LLC, a Delaware limited liability company (the “Issuer”), and Theravance Biopharma R&D, Inc., a Cayman Islands exempted company (“Theravance Biopharma R&D”), hereby covenant and agree with you as follows:

## ARTICLE I INTRODUCTORY

Section 1.1 Introductory. The Issuer proposes, subject to the terms and conditions stated herein, to issue and sell to the purchaser named in Schedule 1 (the “Purchaser”) and to the Other Note Purchasers on the Closing Date \$400,000,000 in aggregate principal amount of the Issuer’s Triple II 9.5% Fixed Rate Term Notes due 2035. The principal amount of Original Notes to be purchased by the Purchaser pursuant to this Note Purchase Agreement is set forth opposite the Purchaser’s name in Schedule 1. The Original Notes to be sold to the Purchaser and the Other Note Purchasers (collectively, the “Note Purchasers”) are to be issued on the Closing Date pursuant to, and subject to the terms and conditions of, the Indenture.

The Original Notes will be offered and sold to the Note Purchasers in transactions exempt from the registration requirements of the Securities Act. The Issuer will use the net proceeds from the offering of the Original Notes to (i) pay the placement fee payable to the Placement Agent and certain other fees and expenses associated with the offering and sale of the Original Notes and (ii) pay the remaining amount to Theravance Biopharma R&D in connection with the sale and contribution of the Transferred Assets to the Issuer pursuant to the Sale and Contribution Agreement. Theravance Biopharma R&D will use a portion of the net proceeds to purchase the Class C Units from its wholly-owned subsidiary Triple Royalty Sub LLC, which will use the funds to repay outstanding indebtedness.

## ARTICLE II RULES OF CONSTRUCTION AND DEFINED TERMS

Section 2.1 Rules of Construction and Defined Terms. The rules of construction set forth in Annex A shall apply to this Note Purchase Agreement and are hereby incorporated by reference into this Note Purchase Agreement as if set forth fully in this Note Purchase Agreement. Capitalized terms used but not otherwise defined in this Note Purchase Agreement shall have the respective meanings given to such terms in Annex A, which is hereby incorporated by reference into this Note Purchase Agreement as if set forth fully in this Note Purchase Agreement. Not all terms defined in Annex A are used in this Note Purchase Agreement.

ARTICLE III  
SALE AND PURCHASE OF ORIGINAL NOTES; CLOSING

Section 3.1 Sale and Purchase of Original Notes; Closing. On the basis of the representations and warranties contained in, and subject to the terms and conditions of, this Note Purchase Agreement and the Indenture, the Issuer will issue and sell to the Purchaser, and the Purchaser will purchase, on the Closing Date, the principal amount of Original Notes set forth opposite the Purchaser's name on Schedule 1. The Purchaser will purchase such principal amount of Original Notes at a purchase price equal to 100% of the principal amount thereof (the "Price"). Contemporaneously with entering into this Note Purchase Agreement, the Issuer and Theravance Biopharma R&D are entering into separate Note Purchase Agreements (the "Other Agreements") substantially identical to this Note Purchase Agreement with other note purchasers (the "Other Note Purchasers"), providing for the sale on the Closing Date to each of the Other Note Purchasers of Original Notes in the principal amount specified opposite its name in Schedule 1 to such Other Agreement, at a purchase price equal to 100% of the principal amount thereof (the "Other Prices" and, together with the Price, the "Note Purchase Price"). The Issuer shall not be obligated to deliver, and no Note Purchaser shall be required to purchase, any of the Original Notes except upon delivery of and payment for all the Original Notes to be purchased by the Note Purchasers under the Note Purchase Agreements on the Closing Date and subject to the satisfaction or waiver of the respective terms and conditions hereunder and thereunder.

On the Closing Date, the Issuer will deliver one or more Global Notes for the account of DTC evidencing the aggregate principal amount of Original Notes to be acquired by all Note Purchasers pursuant to the Note Purchase Agreements on the Closing Date, against payment by each such Note Purchaser of its respective portion of the aggregate Note Purchase Price for its beneficial interest therein by wire transfer of immediately available funds to the Trustee Closing Account. The Issuer shall cause the Trustee to hold all such funds in trust for the Note Purchasers pending completion of the closing of the transactions contemplated by the Note Purchase Agreements. Upon receipt by the Trustee of the aggregate Note Purchase Price from all Note Purchasers and the satisfaction of the conditions to closing set forth in Article VI, the Issuer shall cause the Trustee to disburse the Note Purchase Price in accordance with written instructions provided by the Issuer to the Trustee. If the aggregate Note Purchase Price shall not have been received by the Trustee by 3:30 p.m. (New York City time) on the Closing Date, or if the closing of the transactions contemplated by the Note Purchase Agreements shall not otherwise be capable of being consummated by 3:30 p.m. (New York City time) on the Closing Date, then the Trustee shall return, and the Issuer shall cause the Trustee to return, such portion of the Note Purchase Price to such Note Purchaser prior to the close of business on the Closing Date or as soon thereafter as reasonably practicable, in which case such Note Purchaser shall, at its election, be relieved of all obligations (other than confidentiality obligations) under the applicable Note Purchase Agreement.

ARTICLE IV  
REPRESENTATIONS, WARRANTIES AND AGREEMENTS OF PURCHASER

The Purchaser agrees and acknowledges that (x) the Issuer, Theravance Biopharma R&D, respective counsel to the Issuer and Theravance Biopharma R&D and counsel to the Placement Agent may rely upon the accuracy and performance of the representations, warranties,

acknowledgements and agreements of the Purchaser contained in this Article IV and (y) the Placement Agent may rely upon the accuracy and performance of the representations, warranties and agreements of the Purchaser contained in Sections 4.1, 4.2 and 4.4.

Section 4.1 Purchase for Investment and Restrictions on Resales. The Purchaser:

(a) acknowledges that the Original Notes have not been and will not be registered under the Securities Act or the Applicable Laws of any U.S. state or other jurisdiction relating to securities matters other than on the official list of the Cayman Islands Stock Exchange and may not be offered, sold, pledged or otherwise transferred except as set forth in the Indenture and the legend regarding transfers on its Original Notes;

(b) agrees that, if it should resell or otherwise transfer the Original Notes, in whole or in part, it will do so only pursuant to an exemption from, or in a transaction not subject to, registration under the Securities Act and any other Applicable Laws relating to securities matters, including the Investment Company Act, the respective rules and regulations promulgated under any of the foregoing, the provisions of this Note Purchase Agreement and any transfer restrictions set forth in the Indenture, and only to a Person that it reasonably believes, at the time any buy order for such Original Notes is originated, is (i) Theravance Biopharma R&D, the Issuer or any of their respective subsidiaries or (ii) a Qualified Purchaser that is not a Restricted Party that (x) is a QIB that purchases for its own account or for the account of a QIB, to which notice is given that the transfer is being made in reliance on Rule 144A or (y) is a Non-U.S. Person outside the United States in an offshore transaction in compliance with Rule 903 or 904 of Regulation S (if available);

(c) agrees that it will give to each Person to which it transfers the Original Notes, in whole or in part, notice of the restrictions on transfer of the Original Notes;

(d) agrees that it will cause any Person to which it intends to transfer (or any prospective purchaser of) the Original Notes to execute and deliver to the Issuer a confidentiality agreement in the form attached as Exhibit B to the Indenture and agrees not to make available or disclose any Information (as defined in Exhibit B to the Indenture) to such Person until such confidentiality agreement is so executed and delivered and the parties hereto acknowledge and agree that after such Person executes and delivers such confidentiality agreement, the Purchaser and its Affiliates shall not be liable in respect of the actions or omissions to act of such Person with respect to such information if such Person is not an Affiliate of the Purchaser, and the Purchaser otherwise agrees to comply with the procedures relating to the execution and delivery of such confidentiality agreement set forth in the Indenture;

(e) acknowledges the restrictions and requirements applicable to transfers of the Original Notes contained in the Indenture and agrees that it will only offer or sell the Original Notes in accordance with the Indenture and only to Permitted Holders; and

(f) represents that it is purchasing the Original Notes for investment purposes and not with a view to resale or distribution thereof in contravention of the requirements of the Securities Act; provided, however, that the Purchaser reserves the right to sell the Original Notes at any time in accordance with Applicable Laws, the restrictions and requirements contained in

the Indenture applicable to transfers of the Original Notes, the legend on the Original Notes regarding transfers and the Purchaser's investment objectives.

Section 4.2 Purchaser Status. The Purchaser represents and warrants that, as of the date hereof, it is a Qualified Purchaser that is not a Restricted Party and is (i) a QIB and is purchasing the Original Notes for its own account or for the account of a QIB, (ii) a Non-U.S. Person or (iii) an Institutional Accredited Investor.

Section 4.3 Source of Funds. The Purchaser represents, warrants and covenants that at least one of the following statements is an accurate representation as to itself or each source of funds (a "Source") to be used by the Purchaser to pay the purchase price of the Original Notes to be purchased by the Purchaser hereunder:

(a) it is not a Plan and is not acting on behalf of a Plan or using Plan Assets to purchase an Original Note; or

(b) the Source is an "insurance company general account" (as the term is defined in the United States Department of Labor's Prohibited Transaction Exemption ("PTE") 95-60) in respect of which the reserves and liabilities (as defined by the annual statement for life insurance companies approved by the National Association of Insurance Commissioners (the "NAIC Annual Statement")) for the general account contract(s) held by or on behalf of any employee benefit plan together with the amount of the reserves and liabilities for the general account contract(s) held by or on behalf of any other employee benefit plans maintained by the same employer (or affiliate thereof as defined in PTE 95-60) or by the same employee organization in the general account do not exceed 10% of the total reserves and liabilities of the general account (exclusive of separate account liabilities) plus surplus as set forth in the NAIC Annual Statement filed with the Purchaser's state of domicile; or

(c) the Source is a separate account that is maintained solely in connection with the Purchaser's fixed contractual obligations under which the amounts payable, or credited, to any employee benefit plan (or its related trust) that has any interest in such separate account (or to any participant or beneficiary of such plan (including any annuitant)) are not affected in any manner by the investment performance of the separate account; or

(d) the Source is either (i) an insurance company pooled separate account, within the meaning of PTE 90-1 or (ii) a bank collective investment fund, within the meaning of PTE 91-38 and, except as disclosed by the Purchaser to the Issuer in writing pursuant to this clause (d), no employee benefit plan or group of plans maintained by the same employer or employee organization beneficially owns more than 10% of all assets allocated to such pooled separate account or collective investment fund; or

(e) the Source constitutes assets of an "investment fund" (within the meaning of Part VI of PTE 84-14 (the "QPAM Exemption")) managed by a "qualified professional asset manager" or "QPAM" (within the meaning of Part VI of the QPAM Exemption), no employee benefit plan's assets that are managed by the QPAM in such investment fund, when combined with the assets of all other employee benefit plans established or maintained by the same employer or by an affiliate (within the meaning of Part VI(c)(1) of the QPAM Exemption) of

such employer or by the same employee organization and managed by such QPAM, represent more than 20% of the total client assets managed by such QPAM, the conditions of Part I(c) and (g) of the QPAM Exemption are satisfied, neither the QPAM nor a person controlling or controlled by the QPAM maintains an ownership interest in the Issuer that would cause the QPAM and the Issuer to be “related” within the meaning of Part VI(h) of the QPAM Exemption and (i) the identity of such QPAM and (ii) the names of any employee benefit plans whose assets in the investment fund, when combined with the assets of all other employee benefit plans established or maintained by the same employer or by an affiliate (within the meaning of Part VI(c)(1) of the QPAM Exemption) of such employer or by the same employee organization, represent 10% or more of the assets of such investment fund, have been disclosed to the Issuer in writing pursuant to this clause (e); or

(f) the Source constitutes assets of a “plan(s)” (within the meaning of Part IV(h) of PTE 96-23 (the “INHAM Exemption”)) managed by an “in-house asset manager” or “INHAM” (within the meaning of Part IV(a) of the INHAM Exemption), the conditions of Part I(a), (g) and (h) of the INHAM Exemption are satisfied, neither the INHAM nor a person controlling or controlled by the INHAM (applying the definition of “control” in Part IV(d)(3) of the INHAM Exemption) owns a 10% or more interest in the Issuer and (i) the identity of such INHAM and (ii) the name(s) of the employee benefit plan(s) whose assets constitute the Source have been disclosed to the Issuer in writing pursuant to this clause (f); or

(g) the Source is a governmental plan; or

(h) the Source is one or more employee benefit plans, or a separate account or trust fund comprised of one or more employee benefit plans and/or plans subject to Section 4975 of the Code, each of which has been identified to the Issuer in writing pursuant to this clause (h) and none of clauses (b) to (g) applies to the Source; or

(i) the Source does not include assets of any employee benefit plan, other than a plan exempt from the coverage of ERISA and Section 4975 of the Code.

As used in this Section 4.3, the terms “employee benefit plan,” “governmental plan,” and “separate account” shall have the respective meanings assigned to such terms in Section 3 of ERISA.

#### Section 4.4 Due Diligence.

(a) The Purchaser acknowledges that (i) it has received and reviewed and is familiar with the final summary of terms dated February 21, 2020 relating to the Transaction Documents, and (ii) the Placement Agent has made certain information in a dataroom maintained through Debt Domain, which may be accessed through login credentials provided by the Issuer to the Purchaser (the information described in clauses (i) and (ii), collectively, the “Information Package”). The Purchaser (i) has obtained all information that it has deemed necessary or appropriate to determine, based on its own judgment, whether to enter into the transactions contemplated by the Transaction Documents, including the purchase of the Original Notes, and (ii) acknowledges and agrees that the Information Package does not address all matters customarily addressed in, or otherwise comparable to, a registration statement filed in connection with a public offering or an offering document customarily used in private placement transactions.

(b) The Purchaser acknowledges that it is acting for its own account, and it has made its own independent decision to purchase the Original Notes and enter into the other transactions contemplated by the Transaction Documents and as to whether the acquisition of the Original Notes and the entry into the transactions contemplated by the Transaction Documents is appropriate or proper for it based upon its own judgment and based on such information and materials and advice from its own advisors as it has deemed necessary or appropriate in connection therewith. The Purchaser is not relying on any communication (written or oral) of the Issuer or Theravance Biopharma R&D or any of their respective Affiliates or members, managers, brokers, advisors, lawyers, accountants, bankers, trustees, investors, co-investors, insurers, insurance brokers, underwriters and financing parties as investment advice or as a recommendation to purchase the Original Notes or enter into the transactions contemplated by the Transaction Documents, it being understood that any information and explanations regarding the Original Notes, the terms and conditions of the Transaction Documents or the transactions contemplated hereby or thereby provided by the Issuer, whether at the request of the Purchaser or in connection with discussions with the Purchaser, shall not be considered investment advice or a recommendation to purchase the Original Notes or enter into the transactions contemplated by the Transaction Documents. The Purchaser has not received from the Issuer or Theravance Biopharma R&D or any of their respective Affiliates or members, managers, brokers, advisors, lawyers, accountants, bankers, trustees, investors, co-investors, insurers, insurance brokers, underwriters and financing parties any assurance or guarantee as to the expected performance of the Original Notes or the results or consequences of entering into the transactions contemplated by the Transaction Documents. None of the Issuer or Theravance Biopharma R&D or any of their respective Affiliates or members, managers, brokers, advisors, lawyers, accountants, bankers, trustees, investors, co-investors, insurers, insurance brokers, underwriters and financing parties makes any representation regarding the financial, business or tax implications for the Purchaser of purchasing the Original Notes or entering into the transactions contemplated by the Transaction Documents.

(c) The Purchaser acknowledges and agrees that (i) the GSK Agreements, the TRC LLC Agreement and the Master Agreement generally impose confidentiality obligations on information relating to or generated in connection with the GSK Agreements, the TRC LLC Agreement and the Master Agreement and performance thereunder, and, accordingly, the Purchaser has made, either alone or together with its advisors, such independent investigation of the Issuer, Theravance Biopharma R&D, Theravance Biopharma, GSK and their respective businesses, financial condition, prospects, managements, assets, obligations and related matters, and such separate and independent investigation of the Transferred Assets, as the Purchaser deems to be, or its advisors have advised to be, necessary or advisable in connection with the purchase of the Original Notes pursuant to the transactions contemplated by this Note Purchase Agreement.

(d) The Purchaser has sufficient knowledge and experience in financial, business and tax matters to render it capable of assessing the merits of and understanding (on its own behalf or through independent professional advice), and understands and accepts, the terms, conditions and risks of purchasing the Original Notes and entering into the transactions contemplated by the Transaction Documents, and the Purchaser is not relying on views or advice of Theravance Biopharma R&D or the Issuer or any of their respective Affiliates or members, managers, brokers, advisors, lawyers, accountants, bankers, trustees, investors, co-investors, insurers, insurance brokers, underwriters and financing parties in that regard. The Purchaser is

capable of assuming, and assumes, the risks of purchasing the Original Notes and entering into the transactions contemplated by the Transaction Documents. The Purchaser is able to bear all of the risks (financial and otherwise) associated with (i) owning the Original Notes, whether as a result of an Event of Default, any termination of the GSK Agreements or the TRC LLC Agreement, any delay, reduction or termination of the Class C Distributions, any breach of the GSK Agreements by GSK or Innoviva, any breach of the TRC LLC Agreement by Innoviva, or any liquidation or winding up of the Issuer or otherwise and (ii) entering into the transactions contemplated by the Transaction Documents. After appropriate independent investigations, the Purchaser has determined that purchasing the Original Notes and entering into the transactions contemplated by the Transaction Documents are suitable for it.

(e) The Purchaser acknowledges and agrees that the Issuer has provided it with an opportunity to review the Transaction Documents and the Information Package.

(f) The Purchaser acknowledges and agrees that (i) none of the Issuer, Theravance Biopharma or Theravance Biopharma R&D shall have any obligation or liability with respect to the allocations of resources, scope, intensity and duration of efforts or decisions and judgments made in connection with development and commercialization (including acts or omissions that result in, or increase the likelihood of, greater or lesser commercial success): (A) with respect to, or as among, any Products or (B) as among any one or more Products, on the one hand, and any other products or therapeutically active components, on the other hand.

(g) The Purchaser acknowledges and agrees that the Issuer, Theravance Biopharma R&D, Theravance Biopharma and their respective Affiliates have in their possession, and in the future may come into possession of, and the Placement Agent, its Affiliates and any other Person, may now or in the future have in their possession, projections, forecasts and estimates with respect to Theravance Biopharma R&D, Theravance Biopharma, the Products, the market in which the Products compete, the Issuer or other related matters that are confidential and have not been made available to the Purchaser, that may be materially more optimistic than those otherwise available to the Purchaser and others that may be materially more pessimistic than those otherwise available to the Purchaser and that differ from the projections, forecasts and estimates that may otherwise be available to the Purchaser.

(h) None of Theravance Biopharma R&D or the Issuer or any of their respective Affiliates is acting as a fiduciary for or an advisor to the Purchaser in respect of the Original Notes or the transactions contemplated by the Transaction Documents or has any responsibility governing the conduct of fiduciaries or investment advisors as may be applicable to the Purchaser.

(i) The Purchaser agrees that this Note Purchase Agreement does not in itself constitute a “security” within the meaning of the Securities Act or the Exchange Act. The Purchaser is not purchasing the Original Notes or entering into the transactions contemplated by the Transaction Documents except based upon its own judgment and determination as to the appropriateness of a purchase of the Original Notes and the transactions contemplated by the Transaction Documents, based upon the information available to it. In particular, the Purchaser represents and warrants that it is familiar with the risks related to an investment in the Original Notes and the entry into the transactions contemplated by the Transaction Documents. None of Theravance Biopharma R&D or the Issuer or any of their respective Affiliates is undertaking any

responsibility whatsoever relating to such risks, and the Issuer has agreed to sell the Original Notes and enter into the transactions contemplated by the Transaction Documents only if the Purchaser itself has conducted a sufficient review to its satisfaction regarding such risks and that the Purchaser desires the Issuer to sell the Original Notes to the Purchaser and enter into the transactions contemplated by the Transaction Documents based on the Purchaser's assessment of such risks.

(j) To the extent Theravance Biopharma R&D or the Issuer or any of their respective Affiliates has provided the Purchaser with, or with access to, any information regarding the Original Notes or the transactions contemplated by the Transaction Documents or has otherwise facilitated the obtainment of any such information, the Purchaser understands that none of Theravance Biopharma R&D or the Issuer or any of their respective Affiliates makes any representation or warranty with respect to the accuracy or completeness of any such information except as provided in the Transaction Documents or any documents contemplated to be delivered pursuant to the Transaction Documents, and the Purchaser is capable of independently conducting, and has conducted, to the extent it has determined necessary or appropriate, its own investigation and evaluation with respect to such information and any other information as it may deem appropriate to obtain and review in connection with purchasing the Original Notes and entering into the transactions contemplated by the Transaction Documents. Without limiting the generality of the foregoing, none of Theravance Biopharma R&D or the Issuer or any of their respective Affiliates makes any representation or warranty regarding whether the Information Package, any information contained or referenced therein, or any other information obtained by the Purchaser or that Theravance Biopharma R&D, the Issuer or any other Person may provide the Purchaser with or facilitate access to, includes all information that would be material in connection with evaluating a purchase of the Original Notes or the entry into the transactions contemplated by the Transaction Documents. Theravance Biopharma R&D and the Issuer and their respective Affiliates are relying on the Purchaser to determine the nature and scope of the information relevant to evaluating the purchase of the Original Notes and the entry into the transactions contemplated by the Transaction Documents and are only agreeing to facilitate the obtainment of such information by the Purchaser. The Purchaser agrees that, except as provided in the Transaction Documents, none of Theravance Biopharma R&D or the Issuer or any of their respective Affiliates has any duty or obligation to provide, deliver or disclose any information to the Purchaser, whether or not Theravance Biopharma R&D or the Issuer or any of their respective Affiliates, or any other party, deems any such information relevant or material to the purchase of the Original Notes or the entry into the transactions contemplated by the Transaction Documents.

(k) The Purchaser acknowledges that the Issuer and Theravance Biopharma R&D and their respective Affiliates may be restricted from disclosing certain information in their respective possession due to (i) confidentiality restrictions relating to ownership of certain information by third parties, including Theravance Biopharma, TRC LLC, Innoviva and GSK, and (ii) the need to protect intellectual property rights and trade secrets that are crucial to the continued operation of Theravance Biopharma R&D's business.

(l) The Purchaser has independently and without reliance upon any other Person, and based on such information the Purchaser has deemed appropriate, made its own analysis and decision to enter into this Note Purchase Agreement, except that the Purchaser has relied upon the express representations, warranties, covenants and agreements made for its benefit in the Transaction Documents and any documents contemplated to be delivered pursuant to the



Transaction Documents and, without limiting the generality of the foregoing, the Purchaser has not received any other representations or warranties (implied or otherwise) from any Person, including, without limitation, Theravance Biopharma R&D and the Issuer, in connection with the sale of the Original Notes hereunder.

Section 4.5 Enforceability of this Note Purchase Agreement. This Note Purchase Agreement has been duly authorized, executed and delivered by the Purchaser and constitutes the valid, legally binding and enforceable obligation of the Purchaser, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar Applicable Laws affecting creditors' rights generally and by general principles of equity.

Section 4.6 GSK and Innoviva. The Purchaser acknowledges and agrees that neither GSK nor Innoviva is a party to the transactions to which this Note Purchase Agreement relates, has participated in the preparation of any document related thereto, or makes any representations or warranties whatsoever with respect to the transactions contemplated by the Transaction Documents, including the issuance of the Original Notes by the Issuer, the value thereof, the risks associated therewith or any other matter whatsoever. The Purchaser further acknowledges and agrees that neither the Purchaser nor the Trustee on the Purchaser's behalf shall have any rights to participate in, or access to non-public information about, the development and commercialization work GSK and Innoviva are undertaking with respect to the GSK Agreements, any right to enforce any rights under the GSK Agreements or be a third party beneficiary of the GSK Agreements, nor shall the Purchaser or the Trustee on the Purchaser's behalf have any right to assert any claim against any Person under the GSK Agreements.

Section 4.7 Confidentiality Agreement. The Purchaser acknowledges and agrees that it is bound by the terms and conditions of the confidentiality agreement referenced in Schedule 1 (including, if the Purchaser is not a party thereto, as if it were a party thereto), agrees to execute any documents reasonably requested by the Issuer to evidence such obligation and acknowledges and agrees that such confidentiality agreement remains in effect and will survive the execution and delivery of this Note Purchase Agreement and the closing of the purchase of the Original Notes pursuant to its terms.

Section 4.8 Tax Matters.

(a) Except as otherwise required by Applicable Law, the Purchaser agrees to treat, and shall treat, the Original Notes as indebtedness of the Issuer for U.S. federal income tax purposes.

(b) The Purchaser understands and acknowledges that failure to provide the Issuer, the Trustee or any Paying Agent with the applicable U.S. federal income tax certifications (generally, an IRS Form W-9 (or successor applicable form) in the case of a Person that is a United States person (within the meaning of Section 7701(a)(30) of the Code) or an appropriate IRS Form W-8 (or successor applicable form) in the case of a Person that is not a United States person (within the meaning of Section 7701(a)(30) of the Code)) may result in U.S. federal back-up withholding from payments in respect of the Original Notes.

Section 4.9 Reliance. The Purchaser acknowledges and agrees that the Issuer and Theravance Biopharma R&D and, for purposes of the opinions to be delivered to the Purchaser pursuant to Sections 6.1 (to the extent such opinions relate to exemptions from registration requirements under Applicable Law), counsel for the Issuer and Theravance Biopharma R&D may rely, without any independent verification thereof, upon the accuracy of the representations, warranties and acknowledgements of the Purchaser, and compliance by the Purchaser with its agreements, contained in Sections 4.1, 4.2, 4.3 and 4.4, and the Purchaser hereby consents to such reliance.

#### ARTICLE V

#### REPRESENTATIONS AND WARRANTIES OF THE ISSUER AND THERAVANCE BIOPHARMA R&D

Each of the Issuer and Theravance Biopharma R&D, jointly and severally, represents and warrants to the Purchaser as follows:

##### Section 5.1 Securities Laws.

(a) No securities of the same class (within the meaning of Rule 144A(d)(3)(i) under the Securities Act) as the Original Notes have been issued and sold by the Issuer within the six-month period immediately prior to the date hereof.

(b) Assuming the accuracy of the statements in the certificate to be delivered by the Placement Agent pursuant to Section 6.4, none of the Issuer, Theravance Biopharma R&D or any affiliate (as defined in Rule 144 under the Securities Act) of the Issuer or Theravance Biopharma R&D has directly, or through any agent, (i) sold, offered for sale, solicited offers to buy or otherwise negotiated in respect of any security (as defined in the Securities Act) that is or will be integrated with the sale of the Original Notes in a manner that would require the registration under the Securities Act of the Original Notes, (ii) engaged in any form of general solicitation or general advertising in connection with the offering of the Original Notes (as those terms are used in Regulation D under the Securities Act), or in any manner involving a public offering within the meaning of Section 4(a)(2) of the Securities Act, including publication or release of articles, notices or other communications published in any newspaper, magazine or similar medium or broadcast over television, radio or internet, or any seminar or meeting whose attendees have been invited by any general solicitation or general advertising or (iii) engaged in any directed selling efforts within the meaning of Rule 902(c) of Regulation S.

(c) Assuming the accuracy of the representations and warranties of the Note Purchasers in each Note Purchase Agreement and assuming the accuracy of the statements in the certificate to be delivered by the Placement Agent pursuant to Section 6.4, (i) the Indenture is not required to be qualified under the Trust Indenture Act and (ii) no registration under the Securities Act of the Original Notes is required in connection with the sale of the Original Notes to the Note Purchasers as contemplated by the Note Purchase Agreements.

Section 5.2 Investment Company Status. Assuming the accuracy of the representations and warranties of the Note Purchasers in each Note Purchase Agreement and after giving effect to the offering and sale of the Original Notes and the purchase by the Issuer of the Transferred Assets,

the Issuer will not be required to register as an “investment company” within the meaning of the Investment Company Act.

Section 5.3 Governmental Authorizations. The execution and delivery by the Issuer or Theravance Biopharma R&D of the Transaction Documents to which the Issuer or Theravance Biopharma R&D is party, the performance by the Issuer or Theravance Biopharma R&D of its obligations thereunder and the consummation of any of the transactions contemplated thereunder do not require any consent, approval, license, order, authorization or declaration from, notice to, action or registration by or filing with any Governmental Authority, except for the filing of a Current Report on Form 8-K with the SEC, the filing of UCC financing statements, those previously obtained and those the failure of which to be obtained or made would not be a Material Adverse Change.

Section 5.4 Compliance with ERISA. The Issuer does not currently maintain and has not maintained any Plan, and neither the Issuer nor Theravance Biopharma R&D currently maintains or has maintained any Non-U.S. Plans. Each Plan maintained by Theravance Biopharma R&D or any of its Subsidiaries has been operated and administered in compliance with Applicable Law, except as could not reasonably be expected to result in a material liability to Issuer or Theravance Biopharma R&D. Neither the Issuer, Theravance Biopharma R&D nor any of their respective ERISA Affiliates has incurred any material liability or penalty pursuant to Title I or IV of ERISA or (with respect to its respective Plans, if any) pursuant to Section 4975 of the Code, and no event, transaction or condition has occurred or exists that would, individually or in the aggregate, reasonably be expected to result in the incurrance of any such liability by the Issuer, Theravance Biopharma R&D or any of their respective ERISA Affiliates, except as would not reasonably be expected to result in a Material Adverse Change. None of the Issuer, Theravance Biopharma R&D or any of their respective ERISA Affiliates currently maintains or has maintained a pension plan that is subject to Title IV of ERISA. The execution and delivery of this Note Purchase Agreement and the issuance and sale of the Original Notes hereunder will not involve any non-exempt prohibited transaction described in Section 406(a)(1)(A)-(D) of ERISA or Section 4975(c)(1)(A)-(D) of the Code. The representation by the Issuer and Theravance Biopharma R&D in the preceding sentence is made in reliance upon and subject to the accuracy of the Note Purchasers’ representation in Section 4.3 of each Note Purchase Agreement as to the sources of the funds used to pay the Note Purchase Price of the Original Notes to be purchased by the Note Purchasers.

Section 5.5 Use of Proceeds; Margin Regulations. Neither Theravance Biopharma R&D nor the Issuer is engaged in the business of extending credit for the purpose of buying or carrying margin stock, and no portion of the Note Purchase Price or the proceeds of the sale of the Original Notes shall be used by Theravance Biopharma R&D or the Issuer, as applicable, for a purpose that violates Regulation T, U or X promulgated by the Board of Governors of the Federal Reserve System from time to time.

Section 5.6 No Immunity. Neither Theravance Biopharma R&D nor the Issuer or any of its respective properties or assets has any immunity from the jurisdiction of any court or from any legal process (whether through service or notice, attachment prior to judgment, attachment in aid of execution or otherwise) under the Applicable Laws of the Cayman Islands.

Section 5.7 Representations and Warranties Relating to the Issuer.

(a) The Issuer is a limited liability company duly formed, validly existing and in good standing under the laws of the State of Delaware and has all power and authority, and all licenses, permits, franchises, authorizations, consents and approvals of all Governmental Authorities, required to own its property and conduct its business as now conducted and to exercise its rights and to perform its obligations under the Transaction Documents to which it is a party. The Issuer is duly qualified to transact business and is in good standing in every jurisdiction in which such qualification or good standing is required by Applicable Law (except where the failure to be so qualified or in good standing would not have a Material Adverse Effect). The Issuer is not in liquidation or bankruptcy and has not become subject to a Voluntary Bankruptcy or an Involuntary Bankruptcy.

(b) The Issuer has not engaged in any activities or become subject to any Losses or other obligations since its organization (other than those activities and Losses incidental to (i) its organization and permitted by the Issuer Organizational Documents or (ii) the execution and performance of the Transaction Documents to which it is a party and the activities referred to in or contemplated by such agreements), assuming, in respect of Losses or other obligations since its organization, the accuracy of the representations and warranties of Theravance Biopharma R&D and Theravance Biopharma in the Sale and Contribution Agreement and the due and timely performance by each of Theravance Biopharma R&D and Theravance Biopharma of its respective obligations under the Sale and Contribution Agreement. The Issuer has not made any distributions since its organization.

(c) None of the execution and delivery by the Issuer of any of the Transaction Documents to which the Issuer is party, the performance by the Issuer of the obligations contemplated thereby or the consummation of the transactions contemplated thereby will (i) contravene, conflict with, result in a breach, violation, cancellation or termination of, constitute a default (with or without notice or lapse of time, or both) under, require prepayment under, give any Person the right to exercise any remedy or obtain any additional rights under, or accelerate the maturity or performance of or payment under, in any respect, (A) any Applicable Law or any judgment, order, writ, decree, permit or license of any Governmental Authority to or by which the Issuer or any of its assets or properties may be subject or bound, except where such violation would not have a Material Adverse Effect, (B) any contract, agreement, indenture, lease, license, deed, binding obligation or instrument to which the Issuer is a party or by which the Issuer or any of its assets or properties is bound, except where such violation would not have a Material Adverse Effect, or (C) any of the Issuer Organizational Documents, or (ii) give rise to any additional right of termination, cancellation or acceleration of any right or obligation of the Issuer.

(d) Each Transaction Document to which the Issuer is a party has been duly authorized, executed and delivered by the Issuer.

(e) The Transaction Documents to which the Issuer is a party, when duly authorized, executed and delivered by the other party or parties thereto, and, in the case of the Original Notes, when issued and authenticated in accordance with the provisions of the Indenture, constitute the legal, valid and binding obligations of the Issuer, enforceable against

the Issuer in accordance with their respective terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or similar Applicable Laws affecting creditors' rights generally, general equitable principles and principles of public policy.

(f) Assuming the accuracy of the representations and warranties of Theravance Biopharma R&D and Theravance Biopharma in the Sale and Contribution Agreement and the due and timely performance by each of Theravance Biopharma R&D and Theravance Biopharma of its respective obligations under the Sale and Contribution Agreement, on the Closing Date, there exists no Event of Default nor any event that, had the Original Notes already been issued, would constitute a Default or an Event of Default.

(g) On the Closing Date, subject to the Liens created in favor of the Trustee and except for any other Permitted Liens, there exists no Lien over the assets of the Issuer.

(h) Assuming the accuracy of the representations and warranties of Theravance Biopharma R&D and Theravance Biopharma in the Sale and Contribution Agreement and the due and timely performance by each of Theravance Biopharma R&D and Theravance Biopharma of its respective obligations under the Sale and Contribution Agreement, there is no action, suit, arbitration proceeding, claim, demand, citation, summons, subpoena, other proceeding or, to the knowledge of the Issuer, investigation pending or, to the knowledge of the Issuer, threatened that challenges or seeks to prevent or delay the consummation of the transactions contemplated by the Transaction Documents.

(i) The Issuer has no Subsidiaries.

(j) Assuming the accuracy of the representations and warranties of Theravance Biopharma R&D and Theravance Biopharma in the Sale and Contribution Agreement and the due and timely performance by each of Theravance Biopharma R&D and Theravance Biopharma of its respective obligations under the Sale and Contribution Agreement, the Issuer has good and marketable title to the assets and property constituting the Collateral, free and clear of any Liens other than Permitted Liens.

(k) Under the laws of the State of Delaware, the laws of the State of New York and U.S. federal law in force at the Closing Date, it is not necessary that any Transaction Document be filed, recorded or enrolled by the Issuer with any court or other Governmental Authority in any such jurisdictions or that any stamp, registration or similar Tax be paid by the Issuer on or in relation to any Transaction Document (other than filings with the SEC, UCC financing statements set forth in Exhibit D to the Indenture, evidences and perfection of the Liens and the various consents and agreements, if any, pursuant to the Indenture).

(l) The Indenture creates in favor of the Trustee, for the benefit of the Noteholders, a valid and enforceable security interest in the Collateral, and, when UCC financing statements in appropriate form are filed in the applicable filing offices and when the Account Control Agreement is executed and delivered by the parties thereto, the security interest created under the Indenture shall constitute a fully perfected security interest in all right, title and interest of the Issuer in the Collateral to the extent perfection can be obtained by filing UCC financing statements or by executing and delivering such Account Control Agreement. No other security

agreement, financing statement or other public notice with respect to all or any part of the Collateral (other than any of the foregoing that is referenced in Exhibit D to the Indenture or otherwise names the Trustee as secured party) is on file or of record in any public office that perfects a valid security interest therein.

(m) Assuming the accuracy of the representations and warranties of Theravance Biopharma R&D and Theravance Biopharma in the Sale and Contribution Agreement and the due and timely performance by each of Theravance Biopharma R&D and Theravance Biopharma of its respective obligations under the Sale and Contribution Agreement, the Issuer has determined, and by virtue of its entering into the transactions contemplated hereby and its authorization, execution and delivery of the Transaction Documents to which it is party, that its incurrence of indebtedness and any other liability hereunder or thereunder or contemplated hereby or thereby, (i) does not leave it with unreasonably small capital with which to engage in its business or unable to pay its debts as they mature, (ii) will not cause it to become subject to any Voluntary Bankruptcy or Involuntary Bankruptcy and (iii) will not render it insolvent within the meaning of Section 101(32) of the Bankruptcy Code. The Issuer has not incurred and does not have present plans or intentions to incur debts or other obligations or liabilities beyond its ability to pay such debts or other obligations or liabilities as they become absolute and matured.

(n) Assuming the accuracy of the representations and warranties of Theravance Biopharma R&D and Theravance Biopharma in the Sale and Contribution Agreement and the due and timely performance by each of Theravance Biopharma R&D and Theravance Biopharma of its respective obligations under the Sale and Contribution Agreement, no material adverse change in the business, financial condition, operations, earnings, performance or properties of the Issuer has occurred since its date of formation, other than its incurrence of indebtedness pursuant to the Indenture.

(o) The Issuer is an entity that is disregarded as separate from the initial Equityholder for U.S. federal income tax purposes. The Issuer has never filed any tax return or report under any name other than its exact legal name at the time of the applicable filing. The Issuer has filed (or caused to be filed) all tax returns and reports required by Applicable Law to have been filed by it and has paid all Taxes required to be paid by it. The Issuer does not have any express or implied obligation to indemnify any other Person with respect to Taxes.

(p) No step has been taken or is intended by the Issuer or, so far as it is aware, any other Person for the winding-up, liquidation, dissolution, administration, merger or consolidation or for the appointment of a receiver or administrator of the Issuer or all or any of its assets.

(q) Subject to Permitted Liens, the Issuer has not assigned or pledged any of its right, title or interest in the Collateral to anyone other than the Trustee.

(r) Assuming the accuracy of the representations and warranties of Theravance Biopharma R&D and Theravance Biopharma in the Sale and Contribution Agreement and the due and timely performance by each of Theravance Biopharma R&D and Theravance Biopharma of its respective obligations under the Sale and Contribution Agreement, the Issuer is in

compliance with the requirements of all Applicable Laws, a breach of any of which would be a Material Adverse Change.

Section 5.8 Other Representations and Warranties of Theravance Biopharma R&D.

(a) Each of the representations and warranties made by Theravance Biopharma R&D on the Closing Date in Article III of the Sale and Contribution Agreement and Section 4.1 of the Pledge and Security Agreement shall be incorporated herein by reference as if fully set forth herein and given on and as of the date hereof for the benefit of the Purchaser.

(b) Trelegy Ellipta is treated as an “Other Combination Product” under the Collaboration Agreement.

ARTICLE VI  
CONDITIONS TO CLOSING

The obligations of the Purchaser hereunder are subject to the accuracy, on and as of the date hereof and the Closing Date, of the representations and warranties of the Issuer and Theravance Biopharma R&D contained herein, to the accuracy of the statements of the Issuer and Theravance Biopharma R&D and their respective officers made in any certificates delivered pursuant hereto, to the performance by the Issuer and Theravance Biopharma R&D of their respective obligations hereunder and to each of the following additional terms and conditions:

Section 6.1 Transactional Opinion. Skadden, Arps, Slate, Meagher & Flom LLP shall have furnished to the Note Purchasers its opinion as to certain other transactional matters, as special counsel to Theravance Biopharma, addressed to the Note Purchasers and dated the Closing Date, in form and substance reasonably satisfactory to the Note Purchasers. Maples and Calder shall have furnished to the Note Purchasers its opinion as to certain transactional matters, as special counsel to Theravance Biopharma and Theravance Biopharma R&D, addressed to the Note Purchasers and dated the Closing Date, in form and substance reasonably satisfactory to the Note Purchasers.

Section 6.2 Certification as to Note Purchase Agreement. Each of the Issuer and Theravance Biopharma R&D shall have furnished to the Note Purchasers a certificate, dated the Closing Date, of its respective Responsible Officer, stating that, as of the Closing Date, the representations and warranties of the Issuer or Theravance Biopharma R&D, as the case may be, in and incorporated into this Note Purchase Agreement are true and correct in all material respects (provided, that each representation and warranty qualified as to materiality shall be true and correct in all respects as so qualified) and the Issuer or Theravance Biopharma R&D, as the case may be, has complied in all material respects with all of the agreements and satisfied all of the conditions on its part to be performed or satisfied hereunder on or before the Closing Date.

Section 6.3 Authorizations. Each of the Issuer, Theravance Biopharma and Theravance Biopharma R&D shall have furnished to the Note Purchasers (i) certified copies of its respective organizational documents, including as such documents have been amended to effect the transactions contemplated by the Transaction Documents, and (ii) a copy of the resolutions, consents or other documents, certified by a Responsible Officer of the Issuer or Theravance

Biopharma R&D, as the case may be, as of the Closing Date, duly authorizing the execution, delivery and performance of the Transaction Documents to which it is a party and any other documents to be executed on or prior to the Closing Date by or on behalf of it in connection with the transactions contemplated hereby and thereby.

Section 6.4 Offering of Original Notes. The Placement Agent shall have delivered to the Issuer a certificate as to the manner of the offering of the Original Notes and the number and character of the offerees contacted, which certificate shall (a) state that the Placement Agent (i) did not solicit offers for, or offer, the Original Notes by means of any form of general solicitation or general advertising or in any manner involving a public offering within the meaning of Section 4(a)(2) of the Securities Act and (ii) solicited offers for the Original Notes only from, and offered the Original Notes only to, Persons that it reasonably believed were Qualified Purchasers that are not Restricted Parties and are (A) QIBs or, if any such Person was buying for one or more institutional accounts for which such Person was acting as fiduciary or agent, only when such Person reasonably believed that each such account was a QIB, (B) in the case of offers outside the United States, Non-U.S. Persons in accordance with Rule 903 of Regulation S and (C) Institutional Accredited Investors, and (b) represent that none of the Placement Agent or, to the knowledge of the Placement Agent, any managing member of the Placement Agent or any director, executive officer or other officer of the Placement Agent or any such managing member participating in the offering of the Original Notes is subject to disqualification under Rule 506(d) under the Securities Act, and shall further state that counsel to the Issuer and Theravance Biopharma R&D and counsel to the Note Purchasers may rely thereon in rendering their respective opinions to be delivered hereunder.

Section 6.5 Use of Proceeds. The Issuer will apply the proceeds of the sale of the Original Notes as set forth in Section 1.1.

Section 6.6 CUSIP/ISIN Numbers. Standard & Poor's CUSIP Service Bureau, as agent for the National Association of Insurance Commissioners, shall have issued CUSIP numbers and ISIN numbers for the Original Notes.

Section 6.7 Proceedings. All proceedings and legal matters incident to the formation and constitution of the Issuer and the issuance of the Original Notes, and all other legal matters relating to the Transaction Documents and the transactions contemplated hereby and thereby, shall be reasonably satisfactory in all material respects to the Purchaser, and the Issuer and Theravance Biopharma R&D shall have furnished to the Purchaser all documents and information that it or counsel to the Purchaser may reasonably request to enable them to pass upon such matters, subject to applicable confidentiality obligations.

Section 6.8 Consummation of Transactions; Refinancing. All of the transactions contemplated by the Transaction Documents to be completed on or before the Closing Date shall have been consummated or shall be consummated concurrently with the transactions contemplated hereby in compliance with Applicable Law without amendment or waiver of any material condition thereof, the Purchaser shall have received executed copies of the Transaction Documents (which shall be in full force and effect), and the Trustee shall have received one or more certificates (endorsed for transfer) representing all of the Capital Securities of the Issuer held by the Trustee pursuant to the terms of the Pledge and Security Agreement. The offering of the Original Notes



on the Closing Date as contemplated hereby shall have been consummated or shall be consummated substantially concurrently with the refinancing of outstanding indebtedness of Triple Royalty Sub LLC, as set forth in Section 1.1.

Section 6.9 No Actions. No action shall have been taken and no statute, rule, regulation or order shall have been enacted, adopted or issued by any Governmental Authority that would, as of the Closing Date, prevent the issuance or sale of the Original Notes, and no injunction, restraining order or order of any other nature by any federal or state court of competent jurisdiction shall have been issued as of the Closing Date that would prevent the issuance or sale of the Original Notes.

Section 6.10 DTC Matters. The Issuer shall have caused the Notes to be made eligible for DTC safekeeping and processing and shall have instructed DTC to send the Important Section 3(c)(7) Notice to all DTC participants in connection with the offering of the Original Notes.

Section 6.11 No Default; No Event of Default. There exists no Event of Default nor any event that, had the Original Notes already been issued, would constitute a Default or an Event of Default.

Section 6.12 Instructions to TRC LLC. Theravance Biopharma R&D or Triple Royalty Sub II LLC shall (a) provide written instructions to Innoviva, as the manager of TRC LLC, substantially in the form of Exhibit A to the Sale and Contribution Agreement, that (i) provides wire transfer instructions for the Collection Account, (ii) directs TRC LLC to remit amounts that are distributable or payable to the Issuer, as the holder of the Issuer Class C Units, to the Collection Account and (iii) requests that TRC LLC amend Exhibit A to the TRC LLC Agreement to reflect the admission of the Issuer as a new member of TRC LLC and the holder of the Issuer Class C Units (subject to the lien of the Trustee in respect of the Issuer Class C Units under the Indenture), and (b) provide a copy of such written instructions to the Note Purchasers.

## ARTICLE VII ADDITIONAL COVENANTS

Section 7.1 DTC. The Issuer will, and Theravance Biopharma R&D will cause the Issuer to, use reasonable best efforts to comply with the agreements set forth in the representation letter of the Issuer to DTC relating to the approval of the Original Notes by DTC for “book-entry” transfer.

Section 7.2 Expenses. The Issuer and Theravance Biopharma R&D jointly and severally agree to pay or cause to be paid from the proceeds of the issuance of the Original Notes all reasonable, documented Transaction Expenses of the special counsel to the Purchaser; provided, that it being understood that neither the Issuer nor Theravance Biopharma R&D will reimburse any other expenses of the Purchaser; provided, further, that no Transaction Expenses or any other expenses of the Purchaser will be paid, caused to be paid or reimbursed if the Original Notes are not issued and the Closing does not occur on the Closing Date.

Section 7.3 Cayman Listing. The Issuer shall use its commercially reasonable best efforts to effect the listing of the Original Notes on the Cayman Islands Stock Exchange and to

maintain such listing on the Cayman Islands Stock Exchange as promptly as practicable on or after the Closing Date.

Section 7.4 Filing of Financing Statements. As soon as practicable following the Closing on the Closing Date, the Issuer shall file financing statements under the UCC and other recordings required to be made to perfect a security interest in the Transferred Assets sold, contributed, assigned, transferred, conveyed and granted on the Closing Date to the Issuer and the Collateral, including those specified in Exhibit D to the Indenture.

#### ARTICLE VIII SURVIVAL OF CERTAIN PROVISIONS

Section 8.1 Survival of Certain Provisions. The representations, warranties, covenants and agreements contained in this Note Purchase Agreement shall survive (a) the execution and delivery of this Note Purchase Agreement and the Original Notes and (b) the purchase or transfer by any Note Purchaser of any Original Note or portion thereof or interest therein. All such provisions are binding upon and may be relied upon by any subsequent holder or beneficial owner of an Original Note, regardless of any investigation made at any time by or on behalf of any Note Purchaser or any other holder or beneficial owner of an Original Note. All statements contained in any certificate or other instrument delivered by or on behalf of any party hereto pursuant to this Note Purchase Agreement shall be deemed to have been relied upon by each other party hereto and shall survive the consummation of the transactions contemplated hereby regardless of any investigation made by or on behalf of any such party. For the avoidance of doubt, all representations, warranties and covenants in this Note Purchase Agreement, in any other Transaction Document or in any certificate or other instrument delivered pursuant hereto or thereto are made as of the date specified herein or therein, as applicable, and none of Theravance Biopharma R&D, the Issuer or any of their Affiliates shall be under any obligation to reaffirm any representations, warranties or covenants made herein or therein on any subsequent date. Only a Person that is not a Restricted Party may make any claim against Theravance Biopharma R&D, the Issuer or any of their Affiliates with respect to any breach of any representation, warranty or covenant contained in any such document.

This Note Purchase Agreement and the other Transaction Documents embody the entire agreement and understanding among the parties hereto and supersede all prior agreements and understandings relating to the subject matter hereof, other than the separate Confidentiality Agreements entered into between each Note Purchaser and the Issuer relating to the transactions contemplated hereby.

#### ARTICLE IX NOTICES

Section 9.1 Notices. All statements, requests, notices and agreements hereunder shall be in writing and delivered by hand, mail, overnight courier or telefax as follows:

- (a) if to the Purchaser, in accordance with Schedule 1;
- (b) if to the Issuer, in accordance with Section 12.5 of the Indenture; and

(c) if to Theravance Biopharma R&D, in accordance with Section 9.3 of the Sale and Contribution Agreement.

ARTICLE X  
SUCCESSORS AND ASSIGNS

Section 10.1 Successors and Assigns. This Note Purchase Agreement will inure to the benefit of and be binding upon the parties hereto and their respective successors, permitted assignees and permitted transferees. So long as any of the Original Notes are Outstanding, neither the Issuer nor Theravance Biopharma R&D may assign any of its rights or obligations hereunder or any interest herein, other than in connection with the Restructuring or otherwise to a successor in interest to Theravance Biopharma R&D in accordance with the Transaction Documents, without the prior written consent of the Purchaser.

ARTICLE XI  
SEVERABILITY

Section 11.1 Severability. Any provision of this Note Purchase Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall (to the full extent permitted by Applicable Law) not invalidate or render unenforceable such provision in any other jurisdiction.

ARTICLE XII  
WAIVER OF JURY TRIAL

Section 12.1 WAIVER OF JURY TRIAL. THE PURCHASER, THE ISSUER AND THERAVANCE BIOPHARMA R&D HEREBY WAIVE TRIAL BY JURY IN ANY ACTION BROUGHT ON OR WITH RESPECT TO THIS NOTE PURCHASE AGREEMENT.

ARTICLE XIII  
GOVERNING LAW; CONSENT TO JURISDICTION; WAIVER OF IMMUNITY

Section 13.1 Governing Law; Consent to Jurisdiction; Waiver of Immunity. THIS NOTE PURCHASE AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL SUBSTANTIVE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO THE RULES THEREOF RELATING TO CONFLICTS OF LAW OTHER THAN SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK, AND THE OBLIGATIONS, RIGHTS AND REMEDIES OF THE PARTIES HEREUNDER SHALL BE DETERMINED IN ACCORDANCE WITH SUCH LAWS. The parties hereto hereby submit to the non-exclusive jurisdiction of the federal and state courts of competent jurisdiction in the Borough of Manhattan in The City of New York in any suit or proceeding arising out of or relating to this Note Purchase Agreement or the transactions contemplated hereby. To the extent that the Issuer or Theravance Biopharma R&D may in any jurisdiction claim for itself or its respective assets immunity (to the extent such immunity may now

or hereafter exist, whether on the grounds of sovereign immunity or otherwise) from suit, execution, attachment (whether in aid of execution, before judgment or otherwise) or other legal process (whether through service of notice or otherwise), and to the extent that in any such jurisdiction there may be attributed to itself or its respective assets such immunity (whether or not claimed), the Issuer or Theravance Biopharma R&D, as the case may be, irrevocably agrees with respect to any matter arising under this Note Purchase Agreement for the benefit of the Purchaser not to claim, and irrevocably waives, such immunity to the full extent permitted by the Applicable Laws of such jurisdiction.

ARTICLE XIV  
COUNTERPARTS

Section 14.1 Counterparts. This Note Purchase Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same Note Purchase Agreement. Any counterpart may be executed by facsimile or other electronic transmission, and such facsimile or other electronic transmission shall be deemed an original.

ARTICLE XV  
TABLE OF CONTENTS AND HEADINGS

Section 15.1 Table of Contents and Headings. The Table of Contents and headings of the Articles and Sections of this Note Purchase Agreement have been inserted for convenience of reference only, are not to be considered a part hereof and shall in no way modify or restrict any of the terms or provisions hereof.

ARTICLE XVI  
TAX DISCLOSURE

Section 16.1 Tax Disclosure. Notwithstanding anything expressed or implied to the contrary herein, the Purchaser and its respective employees, representatives and agents may disclose to any and all Persons, without limitation of any kind, the tax treatment and the tax structure of the transactions contemplated by this Note Purchase Agreement and the agreements and instruments referred to herein and all materials of any kind (including opinions or other tax analyses) that are provided to the Purchaser relating to such tax treatment and tax structure; provided, however, that neither the Purchaser nor any employee, representative or other agent thereof shall disclose any other information that is not relevant to understanding the tax treatment and tax structure of such transactions (including the identity of any party and any information that could lead another to determine the identity of any party) or any other information to the extent that such disclosure could reasonably result in a violation of any Applicable Law relating to federal or state securities matters. For these purposes, the tax treatment of the transactions contemplated by this Note Purchase Agreement and the agreements and instruments referred to herein means the purported or claimed U.S. federal or state tax treatment of such transactions. Moreover, the tax structure of the transactions contemplated by this Note Purchase Agreement and the agreements and instruments referred to herein includes any fact that may be relevant to understanding the purported or claimed U.S. federal or state tax treatment of such transactions.

ARTICLE XVII  
MISCELLANEOUS

Section 17.1 Limited Recourse. Each of the parties hereto agrees that the enforceability against the Issuer of any obligations of the Issuer hereunder shall be limited to the Collateral and the Issuer Pledged Collateral. Once all such Collateral and Issuer Pledged Collateral has been realized upon and such Collateral and Issuer Pledged Collateral has been applied in accordance with Article III of the Indenture, any outstanding obligations of the Issuer shall be extinguished. Each of the parties hereto further agrees that it shall take no action against any employee, partner, director, officer, member, counsel, manager, representative or administrator of the Issuer or the Trustee under this Note Purchase Agreement; provided, that nothing herein shall limit the Issuer (or its permitted successors or assigns, including any party hereto that becomes such a successor or assign) from pursuing claims, if any, against any such Person. The provisions of this Section 17.1 shall survive termination of the Indenture; provided, that the foregoing shall not in any way limit, impair or otherwise affect any rights of any party to proceed against any employee, partner, director, officer, member, counsel, manager, representative or administrator of the Issuer (a) for intentional and willful fraud or intentional and willful misrepresentations on the part of or by such employee, partner, director, officer, member, counsel, manager, representative or administrator or (b) for the receipt by any such employee, partner, director, officer, member, counsel, manager, representative or administrator of the Issuer of any distributions or payments to which the Issuer or any successor in interest is entitled, other than distributions expressly permitted pursuant to the other Transaction Documents. For the avoidance of doubt, this Section 17.1 does not affect the obligations of the Equityholder under the Pledge and Security Agreement or the ability of the Trustee or any Noteholder to exercise any rights or remedies it may have under the Indenture or the Pledge and Security Agreement.

Section 17.2 Distribution Reports. Each party hereto acknowledges and agrees that the Trustee may effect delivery of any Distribution Report (including the materials accompanying such Distribution Report) by making such Distribution Report and accompanying materials available by posting such Distribution Report and accompanying materials on Debt Domain or a substantially similar electronic transmission system. Subject to the conditions set forth in the proviso in the preceding sentence, nothing in this Section 17.2 shall prejudice the right of the Trustee to make such Distribution Report and accompanying materials available in any other manner specified in the Transaction Documents.

Section 17.3 Confidentiality. Except as otherwise required by Applicable Law or judicial or administrative proceedings (by oral questions, interrogatories, requests for information or documents, subpoena, civil investigative demand or similar process) or the rules and regulations of any securities exchange or trading system or any Governmental Authority or pursuant to requests from regulatory agencies having oversight over the Issuer or its Representatives or in connection with the enforcement of any Transaction Document or as otherwise set forth in this Section 17.3, the Issuer will, and will cause each of its Affiliates, directors, officers, employees, agents and representatives who receive such information (collectively, its "Representatives") to, treat and hold as confidential and not disclose to any Person any and all confidential information furnished to it by the Purchaser, including the information in Schedule 1 and the identity of any shareholders, members, directors or Affiliates of the Purchaser, and to use any such confidential information only in connection with this Note Purchase Agreement and any other Transaction

Document and the transactions contemplated hereby and thereby. Notwithstanding the foregoing, the Issuer and its Representatives may disclose such information on a need-to-know basis to its or their respective Representatives, members, managers, brokers, advisors, lawyers, accountants, bankers, trustees, investors, co-investors, insurers, insurance brokers, underwriters and financing parties; provided, however, that such Persons shall be informed of the confidential nature of such information and shall be obligated to keep such confidential information confidential pursuant to obligations of confidentiality substantially similar to those set forth herein. In addition, except as required by Applicable Law or judicial or administrative proceedings (by oral questions, interrogatories, requests for information or documents, subpoena, civil investigative demand or similar process) and except as otherwise set forth in this Section 17.3, neither the Issuer nor any of its Affiliates shall disclose to any Person, or use or include in any public announcement or any public filing, the identity of any shareholders, members, directors or Affiliates of the Purchaser in relation to the transactions contemplated by the Transaction Documents, without the prior written consent of such shareholder, member, director or Affiliate.

The confidentiality obligations of the Purchaser under the confidentiality agreement referenced in Schedule 1 are hereby incorporated by reference herein. The Purchaser hereby agrees to be bound by such obligations until the later of: (i) the date specified in such confidentiality agreement as the date on which such obligations shall terminate and (ii) the date that is 24 months following the date that the Purchaser ceases to have an interest in the Original Notes, whether through a sale of its interest, the maturity or repayment of its interest or otherwise.

Section 17.4 Currency Exchange; Judgment Currency.

(a) If, for the purpose of obtaining a judgment or order in any court, it is necessary to convert a sum due hereunder from Dollars into another currency, Theravance Biopharma R&D has agreed, to the fullest extent that it may effectively do so, that the rate of exchange used shall be that at which, in accordance with normal banking procedures, Theravance Biopharma R&D could purchase Dollars with such other currency in the Borough of Manhattan, The City of New York on the Business Day preceding the day on which final judgment is given.

(b) The obligation of Theravance Biopharma R&D in respect of any sum payable by it to the Purchaser hereunder shall, notwithstanding any judgment or order in a Judgment Currency, be discharged only to the extent that, on the Business Day following receipt by the Purchaser of any sum adjudged to be so due in the Judgment Currency, the Purchaser may in accordance with normal banking procedures purchase Dollars with the Judgment Currency. If the amount of Dollars so purchased is less than the sum originally due to the Purchaser in the Judgment Currency (determined in the manner set forth in Section 17.4(a)), Theravance Biopharma R&D agrees, as a separate obligation and notwithstanding any such judgment, to indemnify the Purchaser against such loss, and, if the amount of the Dollars so purchased exceeds the sum originally due to the Purchaser, the Purchaser shall remit to Theravance Biopharma R&D such excess, provided that the Purchaser shall have no obligation to remit any such excess as long as Theravance Biopharma R&D shall have failed to pay the Purchaser any obligations due and payable to the Purchaser hereunder, in which case such excess may be applied to such obligations of Theravance Biopharma R&D in accordance with the terms hereof. The foregoing indemnity shall constitute a separate and independent obligation of Theravance Biopharma R&D and shall continue in full force and effect notwithstanding any such judgment or order as aforesaid.

[SIGNATURE PAGES FOLLOW]

If the foregoing is in accordance with your understanding of this Note Purchase Agreement, kindly sign and return to us one of the counterparts hereof, whereupon it will become a binding agreement among us and you in accordance with its terms.

Very truly yours,

**TRIPLE ROYALTY SUB II LLC**

By: \_\_\_\_\_

Name:

Title:

**THERAVANCE BIOPHARMA R&D, INC.**

By: \_\_\_\_\_

Name:

Title:

TRIPLE ROYALTY SUB II  
*Note Purchase Agreement*

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**[PURCHASER SIGNATURE PAGE]**

TRIPLE ROYALTY SUB II  
*Note Purchase Agreement*

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**SCHEDULE 1**

**Confidentiality Agreement Referenced In Section 4.7:**

Date: November [ ], 2019

Parties: Theravance Biopharma R&D, Inc. and [ ]

<b>Purchaser</b>	<b>Principal Amount of Original Notes</b>	<b>Notice Information</b>
[ ]	\$( )	[ ]

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**Subsidiaries**

Theravance Biopharma US, Inc. (Delaware)

Theravance Biopharma R&D, Inc. (Cayman Islands)

Theravance Biopharma UK Limited (England and Wales)

Theravance Biopharma Ireland Limited (Ireland)

Theravance Biopharma R&D IP, LLC (Delaware)

Theravance Biopharma Antibiotics IP, LLC (Delaware)

Triple Royalty Sub LLC (Delaware)

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statements (Form S-8 Nos. 333-198206, 333-202856, 333-210225, 333-216446, 333-223470, and 333-231559) pertaining to the Theravance Biopharma, Inc. 2013 Equity Incentive Plan and the Theravance Biopharma, Inc. 2013 Employee Share Purchase Plan,
- (2) Registration Statement (Form S-8 No. 333-200225) pertaining to the Theravance Biopharma, Inc. 2014 New Employee Equity Incentive Plan, and
- (3) Registration Statement (Form S-3 No. 333-235339) of Theravance Biopharma, Inc.,

of our reports dated February 27, 2020, with respect to the consolidated financial statements of Theravance Biopharma, Inc. and the effectiveness of internal control over financial reporting of Theravance Biopharma, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Redwood City, California  
February 27, 2020

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**Certification of Chief Executive Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Rick E Winningham, certify that:

1. I have reviewed this Annual Report on Form 10-K of Theravance Biopharma, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the periods covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the periods in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the periods covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 27, 2020  
(Date)

\_\_\_\_\_  
*/s/ Rick E Winningham*  
Rick E Winningham  
*Chairman of the Board and Chief Executive Officer (Principal Executive Officer)*

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**Certification of Chief Financial Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Andrew Hindman, certify that:

1. I have reviewed this Annual Report on Form 10-K of Theravance Biopharma, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the periods covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the periods in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the periods covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 27, 2020  
(Date)

\_\_\_\_\_  
*/s/ Andrew Hindman*  
Andrew Hindman  
Senior Vice President and Chief Financial Officer  
(Principal Financial Officer)

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**CERTIFICATION OF CHIEF EXECUTIVE OFFICER  
PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Rick E Winningham, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Theravance Biopharma, Inc. on Form 10-K for the fiscal year ended December 31, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition of Theravance Biopharma, Inc. for the periods covered by such Annual Report on Form 10-K and results of operations of Theravance Biopharma, Inc. for the periods covered by such Annual Report on Form 10-K.

February 27, 2020

(Date)

By: \_\_\_\_\_ /s/ Rick E Winningham

Name: Rick E Winningham  
Title: *Chairman of the Board and Chief Executive Officer  
(Principal Executive Officer)*

**CERTIFICATION OF CHIEF FINANCIAL OFFICER  
PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Andrew Hindman, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Theravance Biopharma, Inc. on Form 10-K for the fiscal year ended December 31, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition of Theravance Biopharma, Inc. for the periods covered by such Annual Report on Form 10-K and results of operations of Theravance Biopharma, Inc. for the periods covered by such Annual Report on Form 10-K.

February 27, 2020

(Date)

By: \_\_\_\_\_ /s/ Andrew Hindman

Name: Andrew Hindman  
Title: *Senior Vice President and Chief Financial Officer  
(Principal Financial Officer)*

A signed original of this written statement required by Section 906 has been provided to Theravance Biopharma, Inc. and will be retained by it and furnished to the Securities and Exchange Commission or its staff upon request.

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