Theravance Biopharma, Inc.

(NASDAQ: TBPH)

Second Quarter 2019 Financial Results & Business Update

July 31, 2019

Theravance® Biopharma

Medicines That Make a Difference®

Forward Looking Statements

Under the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995, the company cautions investors that any forward-looking statements or projections made by the company are subject to risks and uncertainties that may cause actual results to differ materially from the forward-looking statements or projections.

Examples of forward-looking statements in this presentation may include the current dispute with Innoviva, Inc. and TRC LLC, 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.

The company's forward-looking statements are based on the estimates and assumptions of management as of the date of this presentation and are subject to risks and uncertainties that may cause the actual results to be materially different than those projected, such as risks related to the nature of the current dispute with Innoviva and TRC LLC, the uncertainty of arbitration and litigation and the possibility that an arbitration award or litigation result involving the current dispute could be adverse to the company, delays or difficulties in commencing or completing clinical studies, the potential that results from clinical or non-clinical studies indicate product candidates are unsafe or ineffective (including when our product candidates are studied in combination with other compounds), delays or failure to achieve and maintain regulatory approvals for product candidates, risks of collaborating with third parties to discover, develop and commercialize products, risks associated with establishing and maintaining sales, marketing and distribution capabilities.

Other risks affecting the company are described under the heading "Risk Factors" and elsewhere in the company's Form 10-Q filed with the Securities and Exchange Commission (SEC) on May 10, 2019, and other periodic reports filed with the SEC.

Focus on Strategic Priorities

COMMITMENT TO CREATING TRANSFORMATIONAL MEDICINES

Opportunities to Create Transformational Medicines	YUPELRI®	Nebulized LAMA in COPD • U.S. commercial launch underway
	TD-1473	Gut-selective oral JAK inhibitor for inflammatory intestinal diseases • Phase 2b/3 RHEA study in ulcerative colitis ongoing; Phase 2b data planned late-2020 • Phase 2 DIONE study in Crohn's disease ongoing; data planned late-2020
	Ampreloxetine	NRI in symptomatic neurogenic orthostatic hypotension (nOH) • Registrational Phase 3 program progressing; 4-week efficacy data expected 2H 2020
	TD-8236	Lung-selective inhaled pan-JAK inhibitor for serious respiratory diseases • Safety and biomarker data from Phase 1 study in healthy volunteers and asthmatics expected September 2019
	Research	Organ-selective research platform designed to expand therapeutic index compared to conventional systemic therapies
Economic Interest	TRELEGY ELLIPTA[1]	Single inhaler triple therapy in COPD • Product launched in 36 countries, including Japan; China approval expected 4Q19 • sNDA submitted to FDA supporting revised labelling on reduction in risk of all-cause mortality compared with ANORO ELLIPTA in patients with COPD • Potential sNDA for asthma indication in 2H 2019

Significant existing cash resources to fund strategic priorities[2]

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[1] TBPH holds 85% economic interest in upward-tiering royalty stream of 6.5% – 10% payable by GSK (net of TRC LLC 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). All statements based on publicly available information.
[2] Cash, cash equivalents, and marketable securities of approximately $396M as of June 30, 2019

TD-1473: Gut-selective oral JAK inhibitor

LATE STAGE STUDIES IN ULCERATIVE COLITIS AND CROHN'S DISEASE

Ulcerative colitis

RHEA PROGRAM

Phase 2b/3 (N=240)
Dose-finding induction
8 weeks

Phase 3 (N=640)
Dose-confirming induction
8 weeks

Responders

Maintenance phase[1]
44 weeks

Crohn's disease

DIONE STUDY

Phase 2 (N=160)
Dose-finding induction
12 weeks

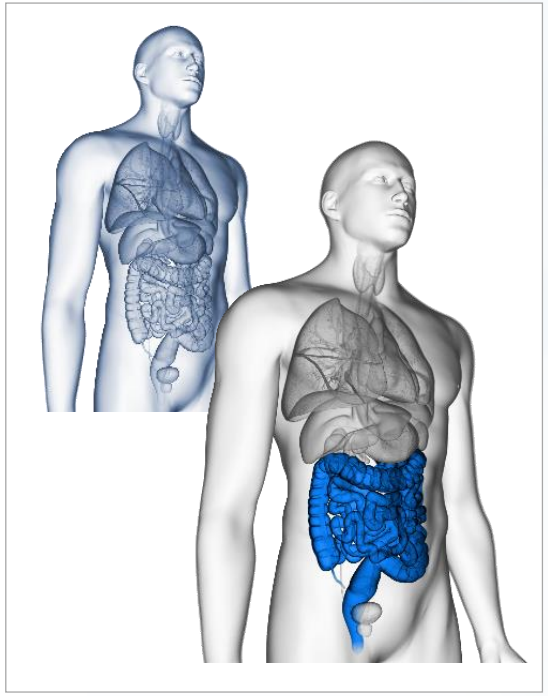
Active treatment extension
48 weeks

Phase 2b/3 study in UC and Phase 2 study in CD progressing; data planned late-2020

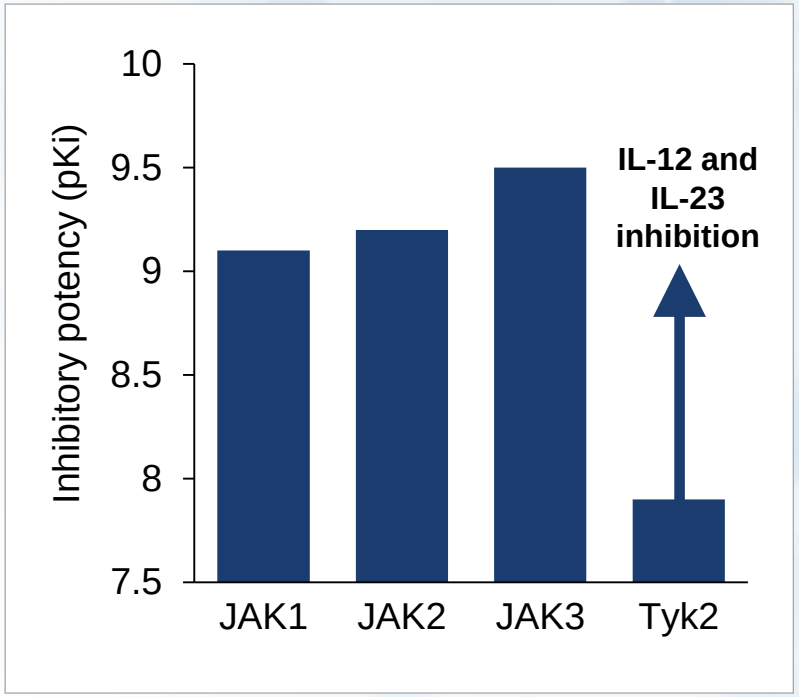
[1] Maintenance phase of the study will have induction responder subjects re-randomized to active doses compared to placebo at 44 weeks

TD-1473 Research Vision

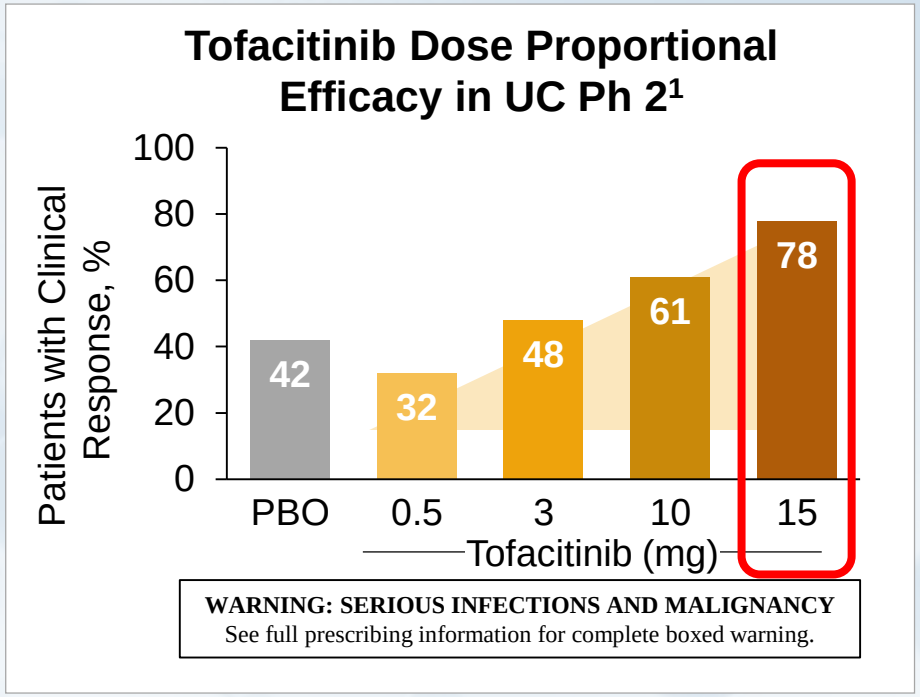
ORGAN-SELECTIVE APPROACH DESIGNED TO EXPAND THERAPEUTIC INDEX



Treat disease at site to maximize efficacy



Optimize pharmacology to include potent inhibition of Tyk2



Improve upon the efficacy of a clinically validated target

Encouraging Phase 1b data and preclinical package (including daily dose administration for 6 & 9 months)

[1] Sandborn WJ, et al. N EnglJ Med 2012;367:616-24
UC = Ulcerative colitis
CD = Crohn's disease

Ampreloxetine: Phase 2 Study in nOH

DESIGNED TO EVALUATE INITIAL AND DURABLE RESPONSE TO THERAPY

Three-part design in patients with nOH:

A
- Single ascending dose portion of ampreloxetine (up to 20 mg)
- Testing blood pressure response to ampreloxetine

B
- Double-blind
- Placebo-controlled
- Single dose (Part A response dose) or placebo

C
- Extension phase
- Open label design
- Up to 24 weeks (20 weeks dosing, 4 week wash out)
- Primary endpoint at 4 weeks

Patients started on Part A, and responders moved to Part B and/or Part C (extension phase)

Purpose: To evaluate the effect of ampreloxetine in improving blood pressure and key nOH symptoms

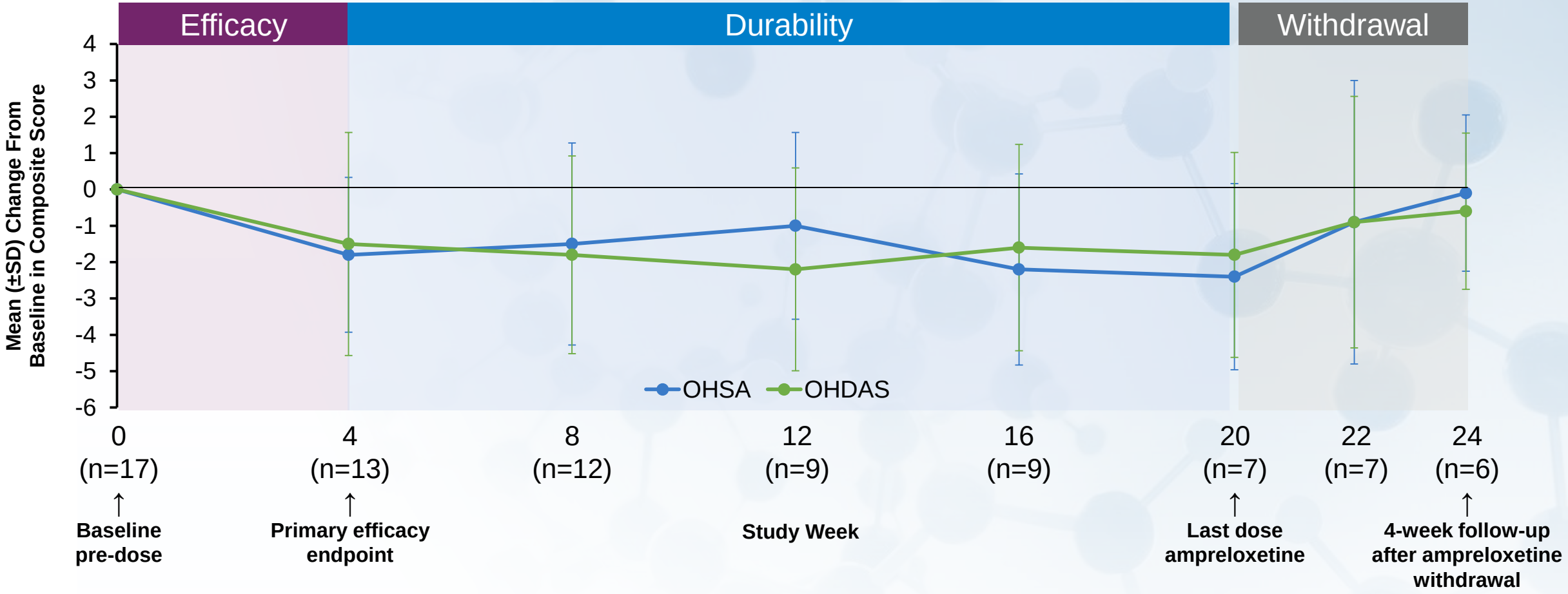
Part C: Responders in Part A eligible for open-label treatment for up to 5 months

- Designed to assess durability of effect
- Primary assessment at four weeks (Day 29)
- Efficacy evaluations: OHSA[1] #1, standing time duration, standing systolic blood pressure
- Also assessed safety and pharmacokinetics of ampreloxetine

[1] OHSA: Orthostatic Hypotension Symptom Assessment. OHSA #1 measures dizziness (cardinal symptom of nOH), lightheadedness, feeling faint, or feeling of impending black out.

Ampreloxetine: Phase 2 Results in nOH

MEAN CHANGE FROM BASELINE IN OHSA AND OHDAS COMPOSITE SCORES (SYMPTOMATIC SUBJECTS[1])



Durable improvements in symptom severity and daily activity sustained out to 20 weeks

[1]Baseline OHSA #1 >4 points.
Negative change indicates improvement.
OHDAS, Orthostatic Hypotension Daily Activity Scale; OHSA, Orthostatic Hypotension Symptom Assessment.

Ampreloxetine Clinical Program

PHASE 3 REGISTRATIONAL PROGRAM IN SYMPTOMATIC NOH

Study 0169: 4 weeks (N=188)

Randomized, double-blind, placebo-controlled, parallel group

SEQUOIA
An ampreloxetine study for snOH

Study 0170: 22 weeks (N=254)

Randomized 6-week withdrawal phase (preceded by 4-month open label)

REDWOOD
An ampreloxetine study for snOH

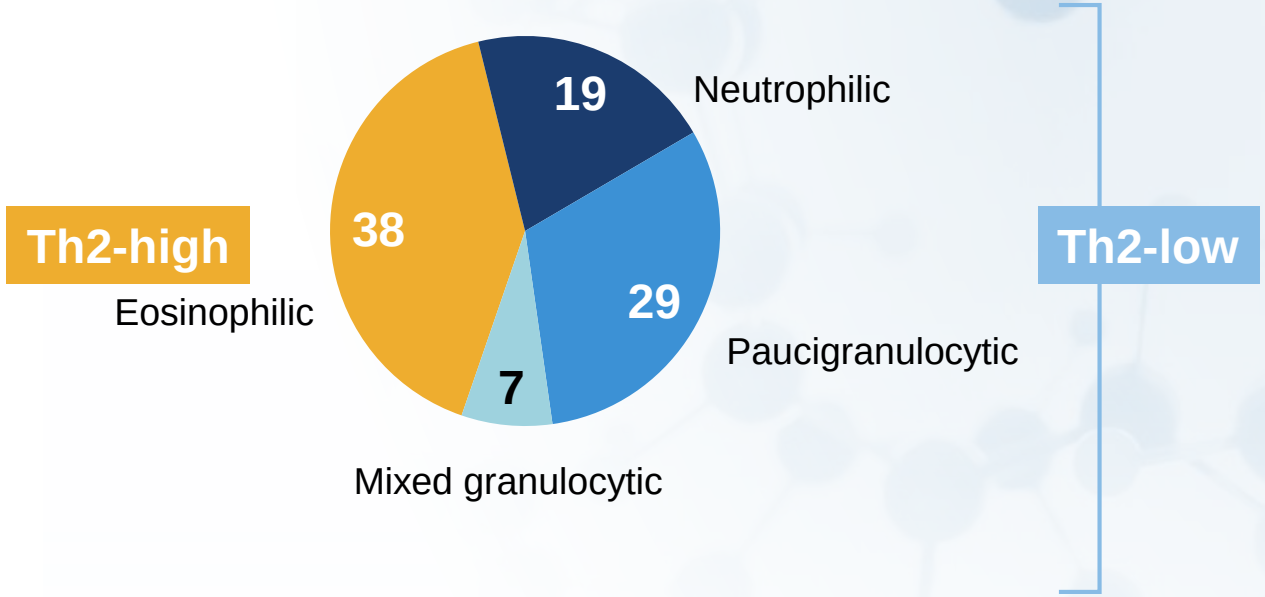
De novo study participants

Phase 2 data supportive of ongoing Phase 3 program; Phase 3 4-week efficacy data expected 2H 2020

TD-8236: Lung-selective Inhaled pan-JAK Inhibitor

POTENTIAL TO ADDRESS PATIENTS NEEDS REGARDLESS OF TH2 PHENOTYPE

Patient heterogeneity in severe asthma



JAK/STAT cytokines implicated in severe asthma

Th2-high	Th2-low
IL-4	**IL-23**/IL-12
IL-13	**IL-6**
IL-5	IL-27
TSLP	IFN-γ

Bold denotes biologics in development or approved

TD-8236 shown to potently inhibit targeted mediators of Th2-high and Th2-low asthma in human cells in preclinical studies

- Novel approved biologics address only Th2-high asthma
- Key treatment needs: Prevention of exacerbations and symptom control for patients regardless of Th2 phenotype

Phase 1 data in healthy volunteers and asthmatics (including biomarker measures) expected September 2019

Simpson JL, et al. Resp 2006;11:54-61.

YUPELRI®: Formal Commercial Launch Underway

FDA-APPROVED FOR THE MAINTENANCE TREATMENT OF COPD

- *First and only once-daily bronchodilator delivered in a nebulizer*
- *Higher of two doses approved: 175 mcg once daily, for use with any standard jet nebulizer*

Unmet need for nebulized LAMA therapy

- Once-daily LAMAs are first-line therapy for moderate to severe COPD [1]
- No once-daily nebulized LAMAs available previously; only available in handheld devices
- Nebulized therapy associated with reduced hospital readmissions in low PIFR patients [2]

YUPELRI® (revefenacin) inhalation solution. Approved for the maintenance treatment of patients with COPD. COPD = Chronic Obstructive Pulmonary Disease.

[1] Global Strategy for Diagnosis, Management, and Prevention of COPD. [2] Suboptimal Inspiratory Flow Rates Are Associated with COPD and All Cause Readmissions. Loh et al., Annals of ATS 2017.

Compelling Need for Once-Daily Nebulized LAMA

ENDURING PATIENT NICHE AND SIGNIFICANT MARKET OPPORTUNITY

Enduring patient niche

- 9% of COPD patients currently use nebulizers for ongoing maintenance therapy [1]
- >100M patient treatment days in nebulized COPD segment [2]
- 41% of COPD patients use nebulizers at least occasionally for bronchodilator therapy [1]
- Pricing in branded LA nebulized segment ~ 2x handheld Spiriva [2]

Significant market opportunity

- YUPELRI® may be complementary to existing nebulized LABA treatments
- Mylan partnership brings commercial strength in nebulized segment

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[1] TBPH market research (N = 160 physicians); Refers to US COPD patients. [2] IMS Health information service: NSP for period MAT May, 2015. Excludes nebulized SABAs.

Partnership with Mylan Brings Commercial Strength in Nebulized Opportunity

Combined sales infrastructures cover
Hospital, Hospital Discharge and Home Health settings

Targeting HCPs at key intersections in the patient's disease management process

- Hospital is an important site of care for patients with worsening of COPD symptoms
- Theravance Biopharma's established hospital-focused sales force is targeting the inpatient setting
- Theravance Biopharma partners with institutions to transition appropriate patients from hospital to home on YUPELRI®
- Mylan's role is to ensure patients remain on YUPELRI® for maintenance therapy in the outpatient setting

HD = hospital discharge
HCPs = health care providers

YUPELRI® Launch Update

ENCOURAGING INITIAL MARKET RESPONSE

FORMULARY

42 Wins
(equates to 136 accounts)

~93 Reviews Scheduled
(~405 potential accounts)

100% medical support
requests **fulfilled** <30 days

PATIENT

Field force productivity goals exceeded

~7,000 patients prescribed
(thru 2Q19)

ACCESS

100% Medicare Part B [1]

~46% Commercial

Permanent J-CODE issued
(effective July 1, 2019)

- Majority of YUPELRI® volume flows through durable medical equipment (DME) channel [2]; remaining volume flows through hospitals, retail and long-term care pharmacies
- WAC: $1,030 per month (or ~$34 per day)

[1] For patients with supplemental insurance
[2] Approximately 3 month lag in data capture

Opportunity for YUPELRI® (revefenacin) in China

POTENTIAL TO ADDRESS LARGE AND UNDERSERVED COPD PATIENT POPULATION

Expansion of development and commercialization agreement

- Mylan granted exclusive development and commercialization rights to revefenacin in China and adjacent territories
- Theravance Biopharma eligible to receive:
  - $18.5 million upfront payment
  - Up to $54 million in additional potential development and sales milestones
  - Tiered royalties on net sales, if approved
- Mylan responsible for all aspects of development and commercialization in partnered regions

Significant market opportunity

- COPD affects ~100 million individuals in China[1]
- ~43% of COPD patients suffer from moderate to very severe forms of disease[2]
- COPD is one of the top three causes of death in China[3] and presents significant financial burden to healthcare system[2]

Theravance Biopharma and Mylan strategic collaboration

- In 2015, the companies established a strategic collaboration to develop and commercialize nebulized revefenacin products for COPD and other respiratory diseases
  - Theravance Biopharma eligible to receive up to $259 million in potential development and sales milestone payments, as well as profit-sharing arrangement with Mylan on US sales and tiered royalties on ex-US sales
  - Theravance Biopharma retains worldwide rights delivered through other dosage forms, including metered dose inhaler and dry powder inhaler (MDI/PDI)

[1]C. Wang, J. Xu, L. Yang et al., "Prevalence and risk factors of chronic obstructive pulmonary disease in China (the China Pulmonary Health [CPH] study): a national cross-sectional study," The Lancet, vol. 391, no. 10131, pp. 1706–1717, 2018. [2] Fang L, Gao P, Bao H, et al., "Chronic obstructive pulmonary disease in China: a nationwide prevalence study," Lancet Respir Med 2018; **6**: 421–430. [3] Yin P, Wang H, Vos T, et al., "A subnational analysis of mortality and prevalence of COPD in China From 1990 to 2013: Findings from the global burden of disease study 2013," Chest. 2016;150:1269–1280.

Second Quarter 2019 Financial Highlights

($, in thousands)	Three Months Ended, June 30, 2019	2018
	(Unaudited)	
Product sales	-	5,361
Collaboration revenue	7,650	18,115
License revenue	18,500	-
Total revenue	**26,150**	**23,476**
Cost of goods sold	-	(1,448)
Research and development[2]	46,399	48,621
Selling, general and administrative[2]	22,227	25,007
Total costs and expenses	**68,626**	**72,180**
Loss from operations	**(42,476)**	**(48,704)**
Share-based compensation expense		
Research and development	5,720	6,904
Selling, general and administrative	5,578	6,951
Total share-based compensation expense	**11,298**	**13,855**
Operating loss excluding share-based compensation	**(31,178)**	**(34,849)**

Well capitalized with $396M as of quarter end[1]

[1] Cash, cash equivalents, and marketable securities
[2] Amounts include share-based compensation

GSK's TRELEGY ELLIPTA

FIRST AND ONLY ONCE-DAILY SINGLE INHALER TRIPLE THERAPY

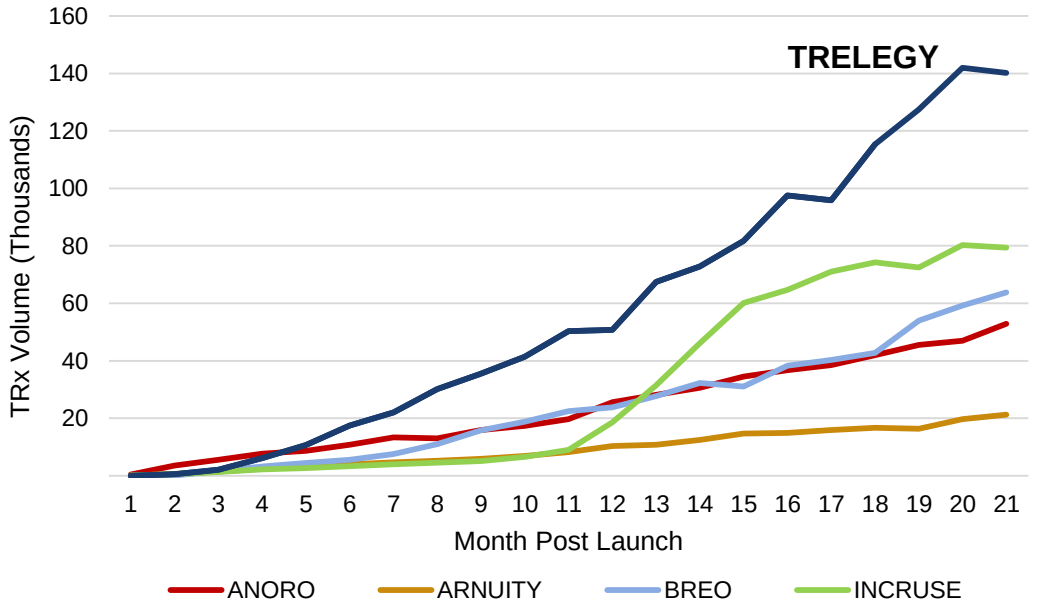
Economic interest in TRELEGY ELLIPTA

- Upward-tiering royalty of ~5.5% - 8.5% of worldwide net sales[1]
- Passive economic interest; no product cost obligations

Growth continues after first full year on market

- Available in 36 countries, including Japan
- Additional geographies expected 2H19; potential for China approval and launch 4Q19
- sNDA submitted to FDA supporting revised labelling on reduction in risk of all-cause mortality compared with ANORO in patients with COPD
- Phase 3 CAPTAIN study in asthma met primary endpoint; regulatory submissions expected 2H 2019

Strongest US ELLIPTA launch to date



Launched in US in November 2017

Source: GSK, IQVIA NPA weekly TRx data. This information is an estimate derived from the use of information under license from the following IQVIA information service: NPA for the time period Sept 2013 through June 2019. IQVIA expressly reserves all rights, including rights of copying, distribution, & republication.

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sNDA: supplemental new drug application

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Key programs drive near- and long-term value-creating events

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