

## Theravance Biopharma, Inc. (NASDAQ: TBPH)

Q2 2017 Financial Results and Business Update
August 8, 2017

# Cautionary Statement Regarding 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 include statements relating to the company's business plans and objectives, including financial and operating results, potential partnering transactions and sales targets, the company's regulatory strategies and timing and results of clinical studies, the potential benefits and mechanisms of action of the company's product and product candidates (including their potential as components of combination therapies).

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 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 9, 2017, and other periodic reports filed with the SEC.

# **Upcoming Milestones**

### Multiple Opportunities for Value Creation in Near-term

Program	Milestone	Target
TD-1439 (NEP inhibitor)	Phase 1a SAD/MAD results in healthy volunteers	Completed
Revefenacin (TD-4208)	Phase 3 long-term safety results in COPD patients	Completed
Velusetrag (TD-5108)	Phase 2b results in Gastroparesis patients	Completed
TD-1473 (JAK inhibitor)	Phase 1b results in UC patients, Cohort 1	Completed
Revefenacin (TD-4208)	NDA submission in US*	2017
VIBATIV® (telavancin)	Patient registry study data (TOUR™)	2017
Closed Triple (FF/UMEC/VI) <sup>1</sup>	Phase 3 IMPACT study completion	2017
Closed Triple (FF/UMEC/VI) <sup>1</sup>	Potential regulatory approval in US and EU for COPD*	2017
TD-1473 (JAK inhibitor)	Phase 1b results in UC patients, Cohorts 2 and 3	2018
TD-9855 (NSRI)	Phase 2a results in nOH patients	2018
Revefenacin (TD-4208)	Phase 3b study results in COPD patients with low PIFR <sup>2</sup>	2018
Revefenacin (TD-4208)	Potential regulatory approval in US for COPD*	2018
VIBATIV® (telavancin)	Phase 3 study data in Bacteremia patients	2018 / 2019
Closed Triple (FF/UMEC/VI) <sup>1</sup>	Phase 3 study completion in Asthma patients	2018
Closed Triple (FF/UMEC/VI) <sup>1</sup>	Supplementary regulatory submissions for Asthma*	2018

<sup>&</sup>lt;sup>1</sup> Economic interests. Regulatory and clinical milestones as reported by GlaxoSmithKline

<sup>&</sup>lt;sup>2</sup> Peak inspiratory flow rate

<sup>\*</sup> Submissions, filings, and approvals are subject to preclinical and clinical data and regulatory interactions

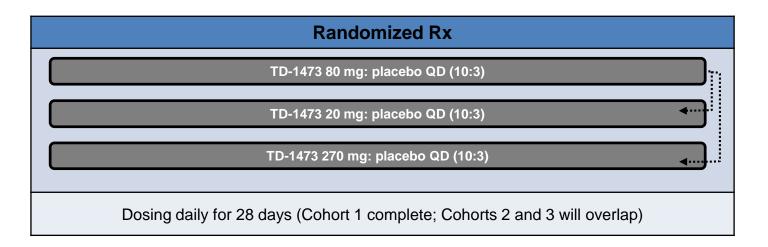


## **JAK Inhibitor Program**

Oral intestinally-restricted pan-Janus kinase (JAK) inhibitors for ulcerative colitis and other inflammatory intestinal diseases

# TD-1473: Phase 1b Study Progressing in Ulcerative Colitis Patients

- Phase 1b designed to evaluate safety, tolerability, PK and PD of TD-1473 in moderately-to-severely active ulcerative colitis patients over 28 days
  - Secondary/exploratory objectives to demonstrate biologic effect through biomarker analysis and clinical, endoscopic and histologic assessments



Encouraging data from first cohort support target product profile

# Evidence of Localized Target Engagement and Minimal Systemic Exposure from Cohort 1 of TD-1473 Phase 1b

#### Minimal Systemic Exposure; No Evidence of Systemic Immunosuppression

- Minimal levels of drug in plasma, consistent with SAD/MAD in healthy volunteers
- No evidence of infections, including no occurrences of zoster reactivation

#### **Early Signs of Biological Target Engagement**

- 7 of 10 patients on TD-1473 experienced ≥ 1-point reduction in Mayo rectal bleeding subscore, compared to 1 of 3 patients on placebo
- 3 of 10 patients on TD-1473 experienced ≥ 1-point reduction in Mayo endoscopic subscore, compared to zero patients in placebo group
- 2 of 10 patients on TD-1473 showed evidence of mucosal healing<sup>1</sup>, compared to zero placebo patients
- 2 of 10 patients on TD-1473 achieved clinical response by total Mayo Score, compared to zero patients on placebo
- 4 of 10 patients receiving TD-1473 achieved clinical response by partial Mayo score, compared to 1
  of 3 patients receiving placebo
- Reductions in levels of CRP, FC and pSTAT1 in patients on TD-1473

#### Safety Data

- No moderate or serious adverse events (AEs) related to TD-1473
- AEs reported with TD-1473 were mild in severity; none led to discontinuation

TD-1473 to advance into induction and maintenance study in 2018



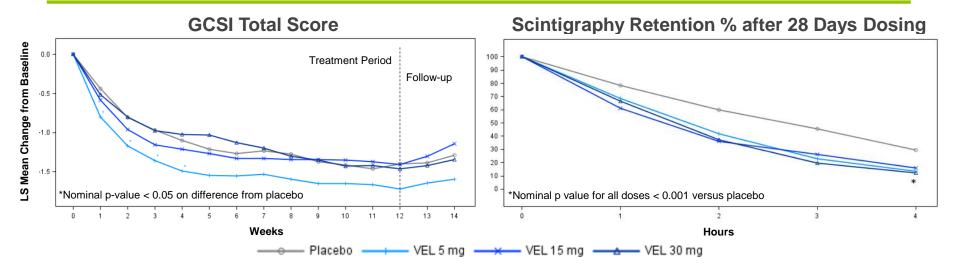


## Velusetrag (TD-5108)

Highly selective 5-HT4 agonist for gastroparesis

## Phase 2b Results Provide POC in Symptom Effect

First Clinical Evaluation of Effect of Velusetrag on Symptoms of Gastroparesis

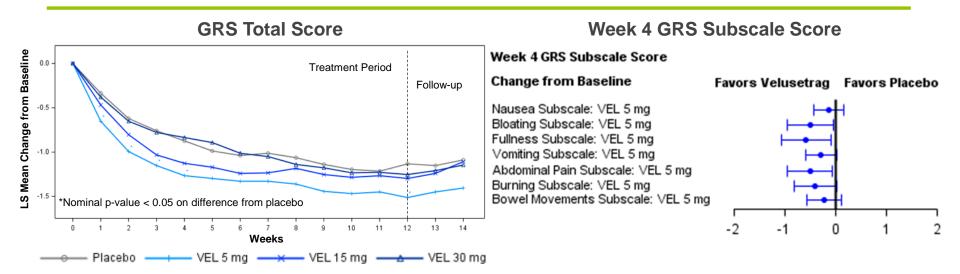


- 5 mg demonstrated statistically significant improvements in gastroparesis symptoms compared to placebo
  - Inverse dose response observed; 15 and 30 mg dose groups not statistically significant
- All doses significantly improve gastric emptying at 4 hours
- Generally well tolerated, AEs and SAEs comparable at 5 mg and placebo,
   SAEs low across all treatment groups

Statistical significance at 5 mg provides confidence in robust treatment effect

## Developing Propriety PRO to Validate for Phase 3

Gastroparesis Rating Scale (GRS) Designed in Alignment with FDA Guidance



- GRS evaluates 7 symptom domains, including upper abdominal pain
- Enduring effect of 5 mg; symptom improvements at weeks 1 4 and week 12
- Consistent improvement across all individual GRS subscale scores

Preparing to meet with regulators to discuss validation of the GRS PRO and next phase of development for velusetrag



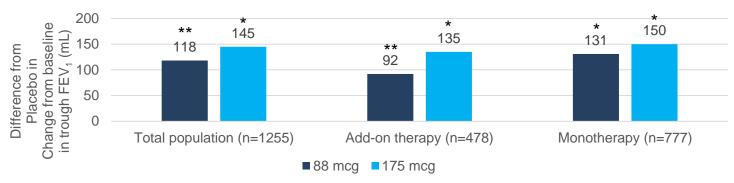
### Revefenacin (TD-4208)

Nebulized Long-Acting Muscarinic Antagonist (LAMA) for COPD



# Revefenacin: Phase 3 Registrational Program Complete, with NDA Filing Planned in Late 2017

- Primary endpoint achieved for both doses in both replicate efficacy studies
  - ✓ Robust and sustained improvements in FEV₁
  - ✓ Effective as monotherapy and as add-on to LABA or LABA/ICS
  - Generally well tolerated



<sup>\*</sup> P < 0.0001 versus placebo

- \*\* P <0.001 versus placebo
- Generally well tolerated in 12-month safety study
  - No new safety issues identified
  - Rates of adverse events low and comparable to standard of treatment

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Q&A

