Theravance Biopharma

Medicines That Make a Difference®

Revefenacin (TD-4208)
Phase 3 Efficacy Results

Once-daily, Nebulized Long-Acting Muscarinic Antagonist (LAMA)

October 20, 2016

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 and the timing and use of the net proceeds from the proposed offering).

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, and market conditions that may affect whether the offering will be made or consummated on the proposed terms, if at all. 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 August 9, 2016, and other periodic reports filed with the SEC.

Revefenacin: Positive Results in Replicate Phase 3 Efficacy Studies

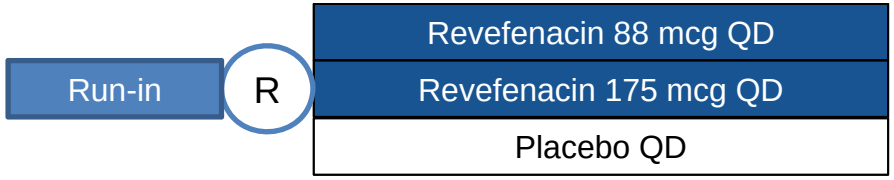
Primary Endpoint Met in Both Studies and at Both Doses

- Robust and sustained improvements in FEV_1
- Effective as monotherapy and as add-on to LABA or LABA/ICS
- Generally well tolerated

FEV_1 = Forced expiratory volume in one second
LABA = Long-acting-beta-agonist; ICS – Inhaled corticosteroid

Revefenacin: Phase 3 Efficacy Study Design and Patient Population

- 2 Replicate, 12-week, randomized, double-blind, placebo-controlled, parallel group studies



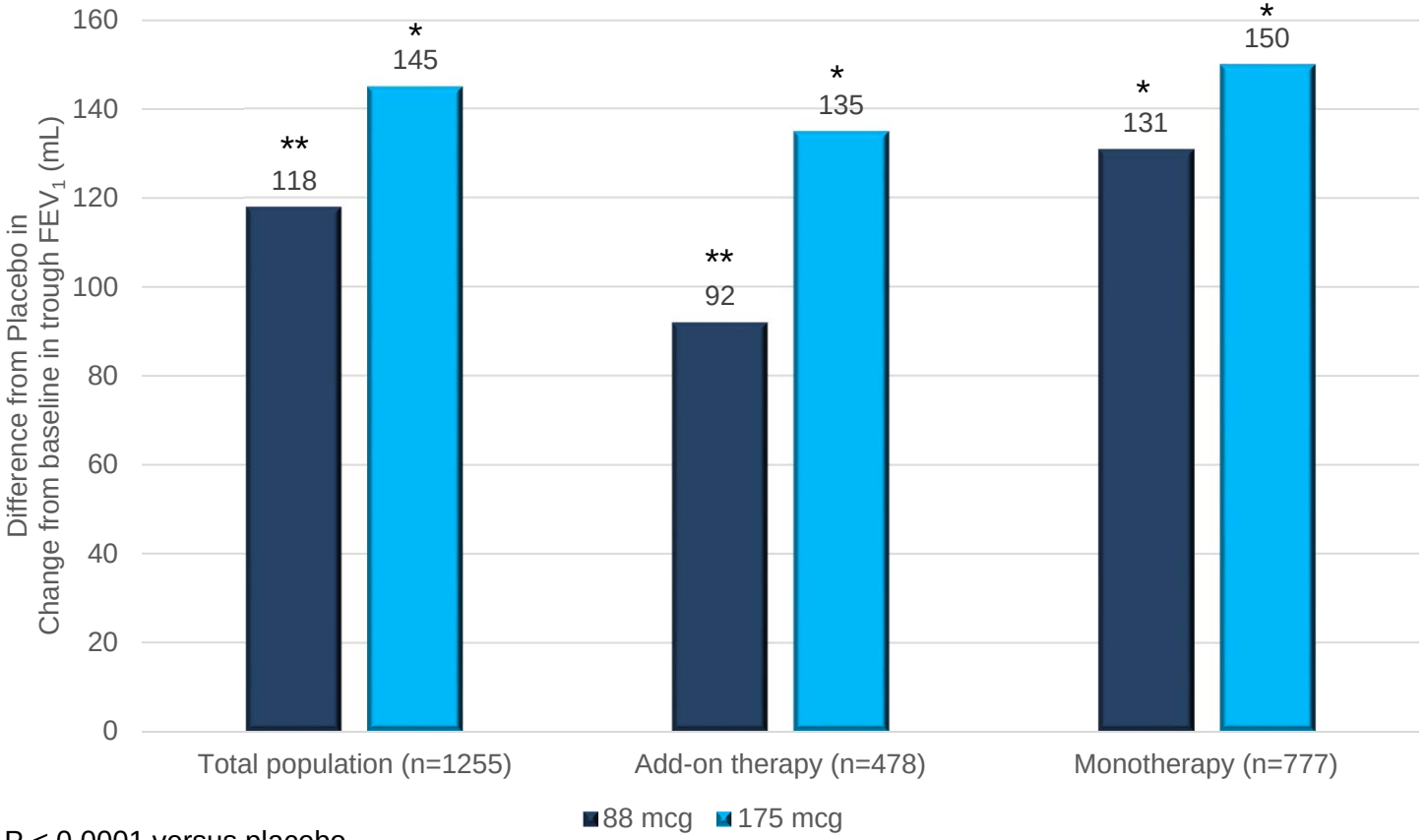
- More than 1,250 moderate to very severe COPD patients across 120 U.S. study sites

Patient Characteristics	
Average age	63.7 years
Smoking history	52.3 pack years
FEV_1 % predicted	54.4%
Patients on background LABA or LABA/ICS - 90% on LABA/ICS	38.1%
Patients with underlying cardiovascular risk factors	47.1%
Patients in COPD GOLD Category D (very severe)	34.5%

FEV_1 = Forced expiratory volume in one second; QD = Once daily; GOLD = **G**lobal Initiative for Chronic **O**bstructive **L**ung **D**isease

[1]Patients on existing LABA or LABA/ICS continued these therapies throughout the duration of the study

Revefenacin: Robust Improvements in FEV_1 as Monotherapy and Add-on Therapy



* P < 0.0001 versus placebo
** P <0.001 versus placebo

Primary Endpoint Achieved for Both Doses

FEV_1 = Forced expiratory volume in one second; Add-on therapy = Revefenacin added to LABA or LABA/ICS

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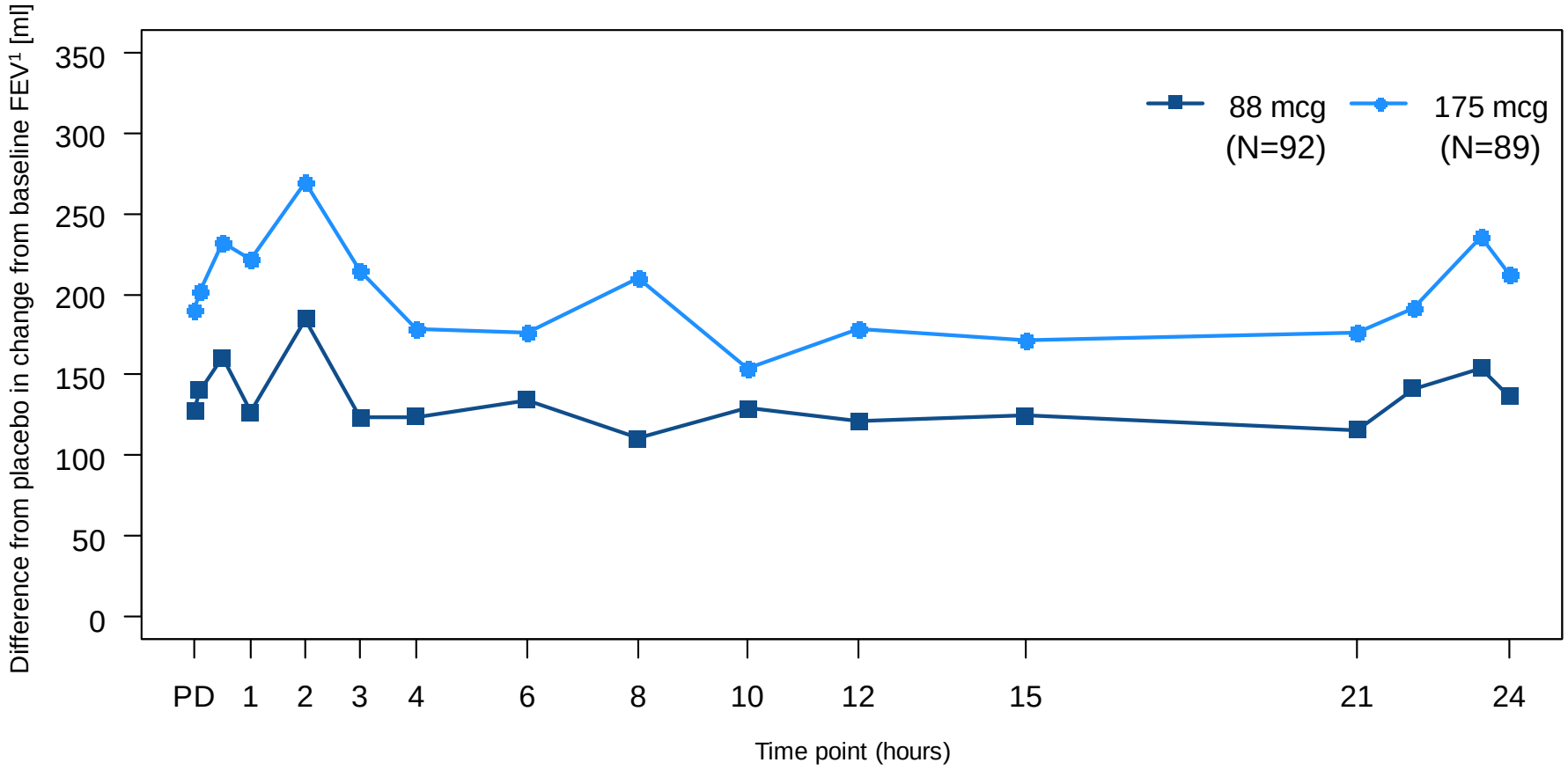
Revefenacin: Consistent Treatment Effect Maintained for 24 hours with Once-Daily Dosing



Dose Dependent Effect on FEV_1 with 175 mcg Consistently Better than 88 mcg

PD = Pre-dose; Note: 24-hour spirometry was assessed at baseline and after 12 weeks' treatment in a subset of subjects in both studies

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Revefenacin: Low Incidence of Serious Adverse Events and Comparable to Placebo

Description	Placebo (N=429)	88mcg (N=425)	175mcg (N=402)
Serious Adverse Events	21 (5%)	21 (5%)	15 (4%)
Deaths:			
- Homicide	0 (0%)	0 (0%)	1 (0.2%)
- Sudden death[1]	1 (0.2%)	0 (0%)	0 (0%)
Adverse Events (AEs)	207 (48%)	227 (53%)	204 (51%)
Possibly/probably Related AEs	39 (9%)	33 (8%)	41 (10%)
AEs Leading to Study Drug Discontinuation	59 (14%)	50 (12%)	43 (11%)

n=1256; 1 subject was randomized but not dosed and is included in the safety population but not the efficacy population

[1] Sudden death in placebo group attributed as cardiovascular by independent adjudication

Revefenacin: Most Frequently Reported Adverse Events (AEs)

Description	Placebo (N=429)	88 mcg (N=425)	175 mcg (N=402)
Exacerbation of COPD	49 (11.4%)	43 (10.1%)	42 (10.4%)
Cough	17 (4.0%)	17 (4.0%)	17 (4.2%)
Dyspnea	23 (5.4%)	13 (3.1%)	12 (3.0%)
Headache	11 (2.6%)	21 (4.9%)	16 (4.0%)

n=1256; 1 subject was randomized but not dosed and is included in the safety population but not the efficacy population

Revefenacin: Generally Well Tolerated

Very Low Incidence of AEs Commonly Reported with Muscarinic Antagonists

- No reports of worsening of urinary retention, blurred vision or narrow-angle glaucoma
- Dry mouth only reported in <0.5% of patients on revefenacin

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