Theravance Biopharma®

Medicines That Make a Difference®

JP Morgan Healthcare Conference

January 13, 2021

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 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, the Company's expectations regarding its allocation of resources, 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 2020 operating loss, excluding share-based compensation and other financial results.

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 impacts on the COVID-19 global pandemic on our business, 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, current and potential future disagreements with 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.

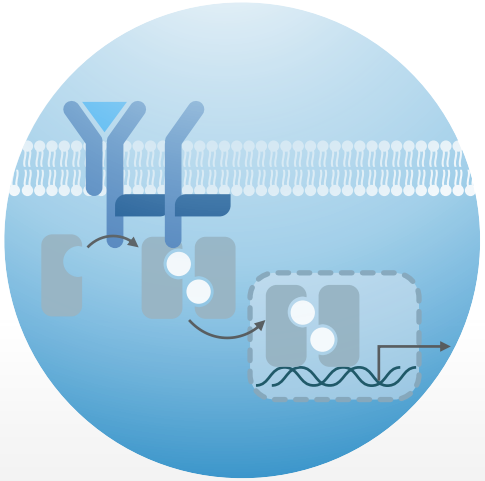
Other risks affecting Theravance Biopharma are in the company's Form 10-Q filed with the SEC on November 9, 2020, and other periodic reports filed with the SEC.

Our science

Organ-selective molecules
designed to optimize therapeutic index

Theravance Biopharma difference: Targeting disease with organ selective medicines

Pathway

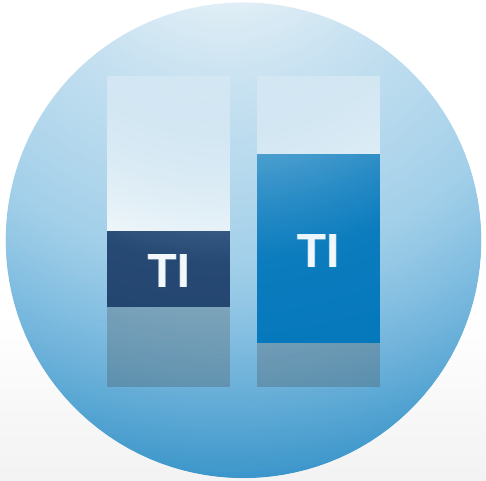


Target disease biology

Disease

Optimize effect in the organ where the disease is active

Therapeutic Index



Expand TI with the goal of maximizing efficacy and limiting systemic side effects

Pioneering a new generation of small molecule drugs designed to better meet patient needs

TI, therapeutic index.

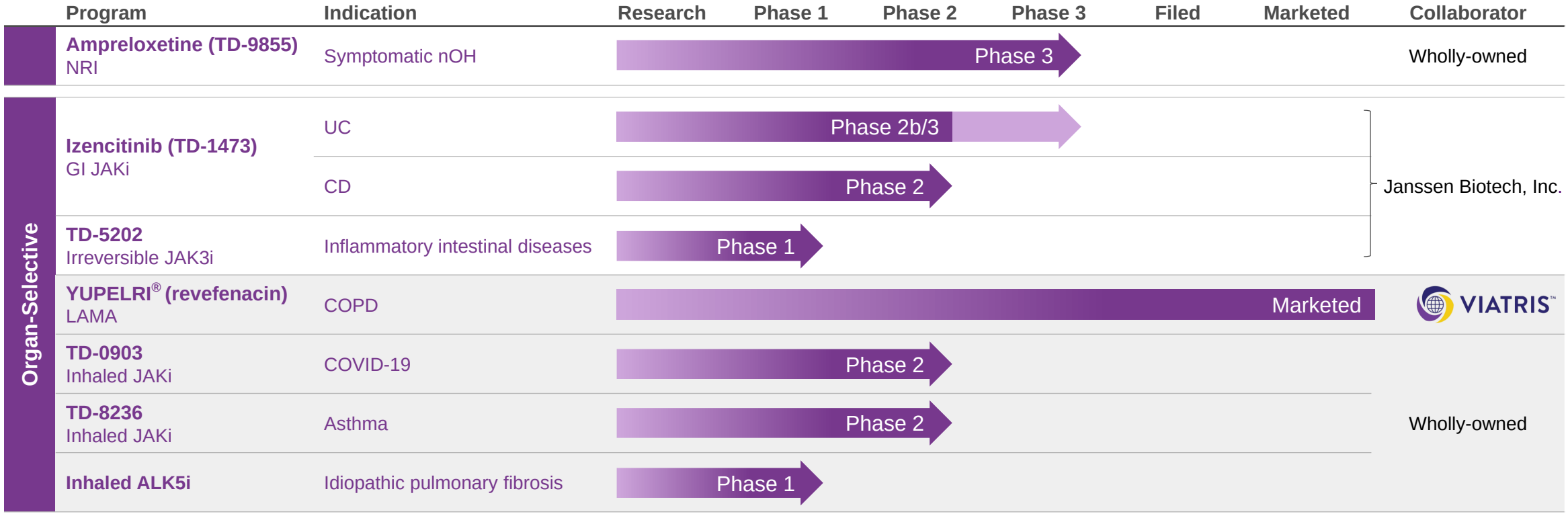
2021: Three Areas for Transformational Impact

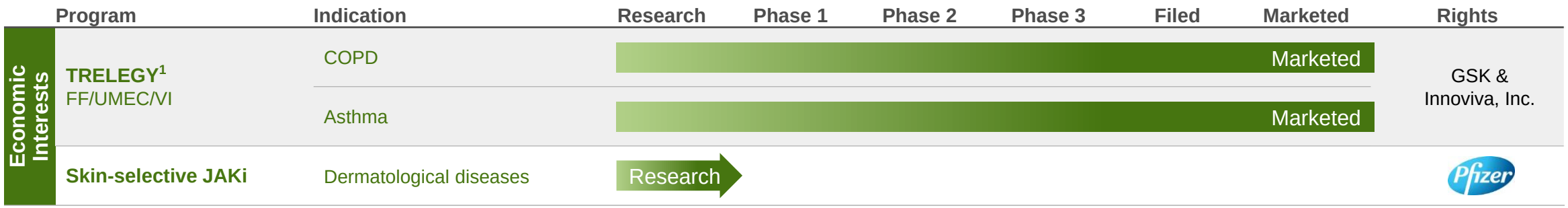
Development Pipeline

Ampreloxetine
Izencitinib
TD-0903

Changing Financial Profile

Key programs supported by proven development and commercial expertise





1. TBPH holds 85% economic interest in upward-tiering royalty stream of 6.5% – 10% payable by GSK (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC Agreement over the next four fiscal quarters). 75% of TRC income received is pledged to service outstanding notes, 25% of royalties received retained by TBPH. All statements concerning TRELEGY ELLIPTA based on publicly available information. CD, Crohn's disease; COPD, chronic obstructive pulmonary disease; FF/UMEC/VI, fluticasone furoate/umeclidinium/vilanterol; JAKi, Janus kinase inhibitor; LAMA, long acting muscarinic receptor antagonist; nOH, neurogenic orthostatic hypotension; NRI, norepinephrine reuptake inhibitor; UC, ulcerative colitis.

2021: Three Areas for Transformational Impact

Development Pipeline

Ampreloxetine
Izencitinib
TD-0903

Changing Financial Profile

YUPELRI® (revefenacin) inhalation solution

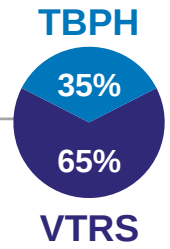
FDA-approved for the maintenance treatment of COPD
First and only once-daily, nebulized maintenance medicine for COPD

Once-daily LAMAs are first-line therapy for moderate-to-severe COPD[1]

9% of COPD patients (~800,000) use nebulizers for ongoing maintenance therapy; 41% use nebulizers at least occasionally for bronchodilator therapy[2]

TBPH and **VTRS** worldwide strategic collaboration to develop and commercialize nebulized YUPELRI® (revefenacin)

Theravance Biopharma + VIATRIS™

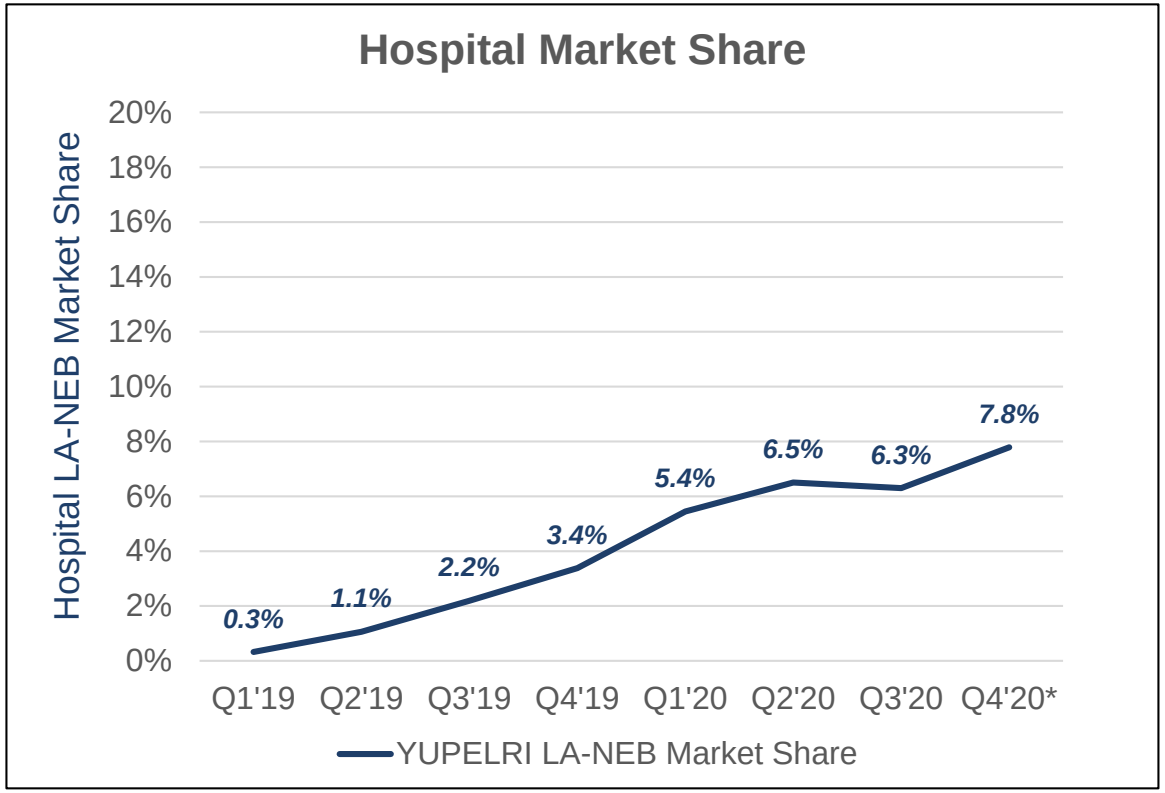


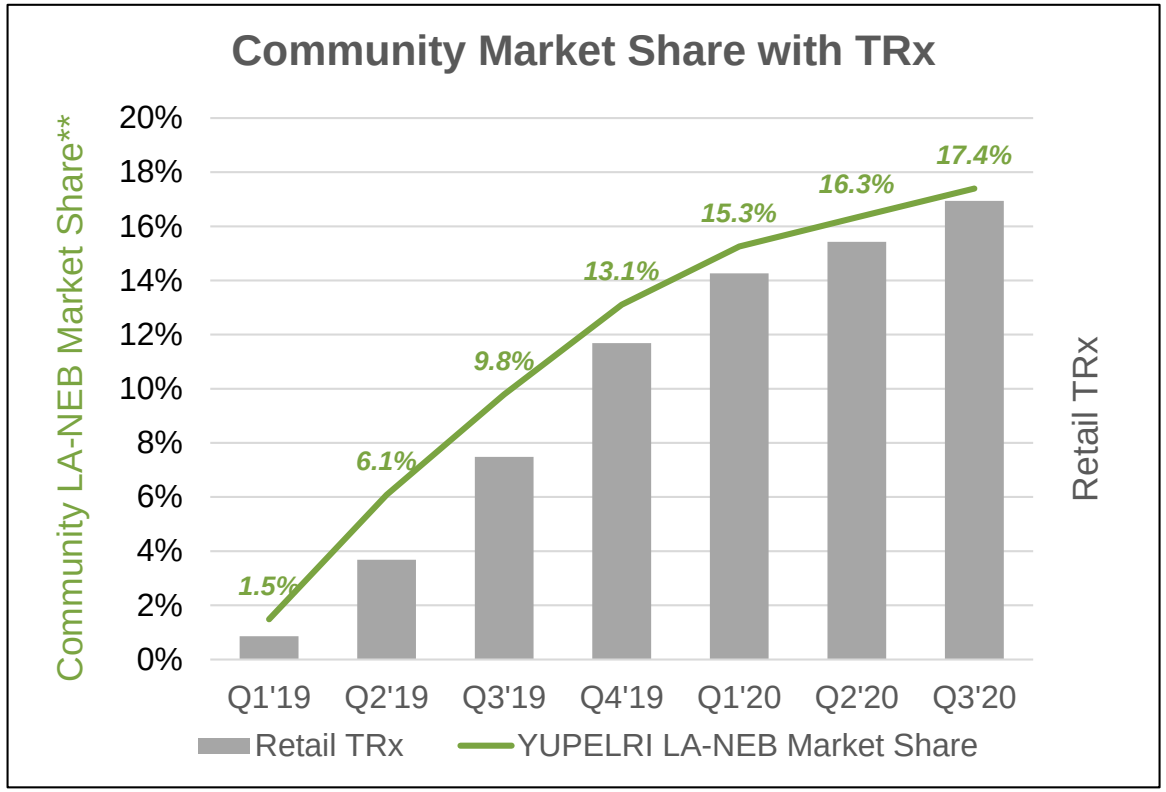
Companies co-promote under US profit/loss share

1. Global Strategy for Diagnosis, Management, and Prevention of COPD, 2018.
2. TBPH market research (N = 160 physicians); refers to US COPD patients.
COPD, chronic obstructive pulmonary disease; LAMA, long acting muscarinic receptor antagonist

YUPELRI® hospital sales and community TRx trends

Continued growth through Q1’20 across both the hospital and retail channels;
Signs of recovery to initial growth trajectory leading into 2021





Most patients that receive YUPELRI® in the hospital are discharged with an Rx[1]

*Q4’20 through 12/18/2020

TRx volume represents retail only which is typically 33% of Retail + DME

**Community LA-NEB Market Share includes Retail + DME / Med B FFS

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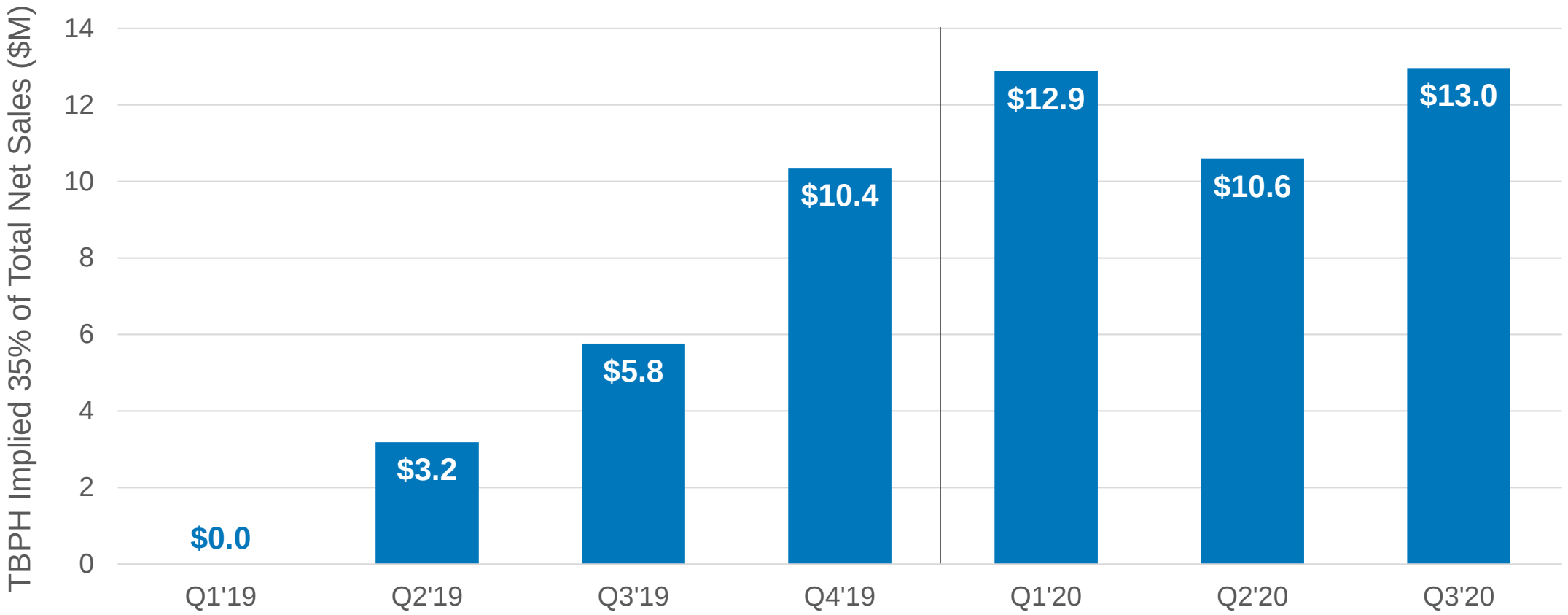
Medicines That Make a Difference

1. Joint VTRS/TBPH Market Research
* Hospital - IQVIA DDD through 12/18/2020.
** Community - IQVIA XPO Excl. LTC (Retail) and SolutionsRx (DME / Med B FFS) through 9/30/2020.
LA-NEB Market: YUPELRI, BROVANA, LONHALA, PERFOROMIST

TBPH implied 35% of YUPELRI® US net sales by quarter

Growth in net sales through Q1’20 and recovery in Q3’20 driven by volume



TBPH implied 35% of YUPELRI US net sales represents TBPH’s split of the combined TBPH and VIATRIS net revenue

See TBPH 10Q filed Nov 9, 2020 for greater detail re TBPH implied 35%.

2021: Three Areas for Transformational Impact

YUPELRI®
revefenacin inhalation solution

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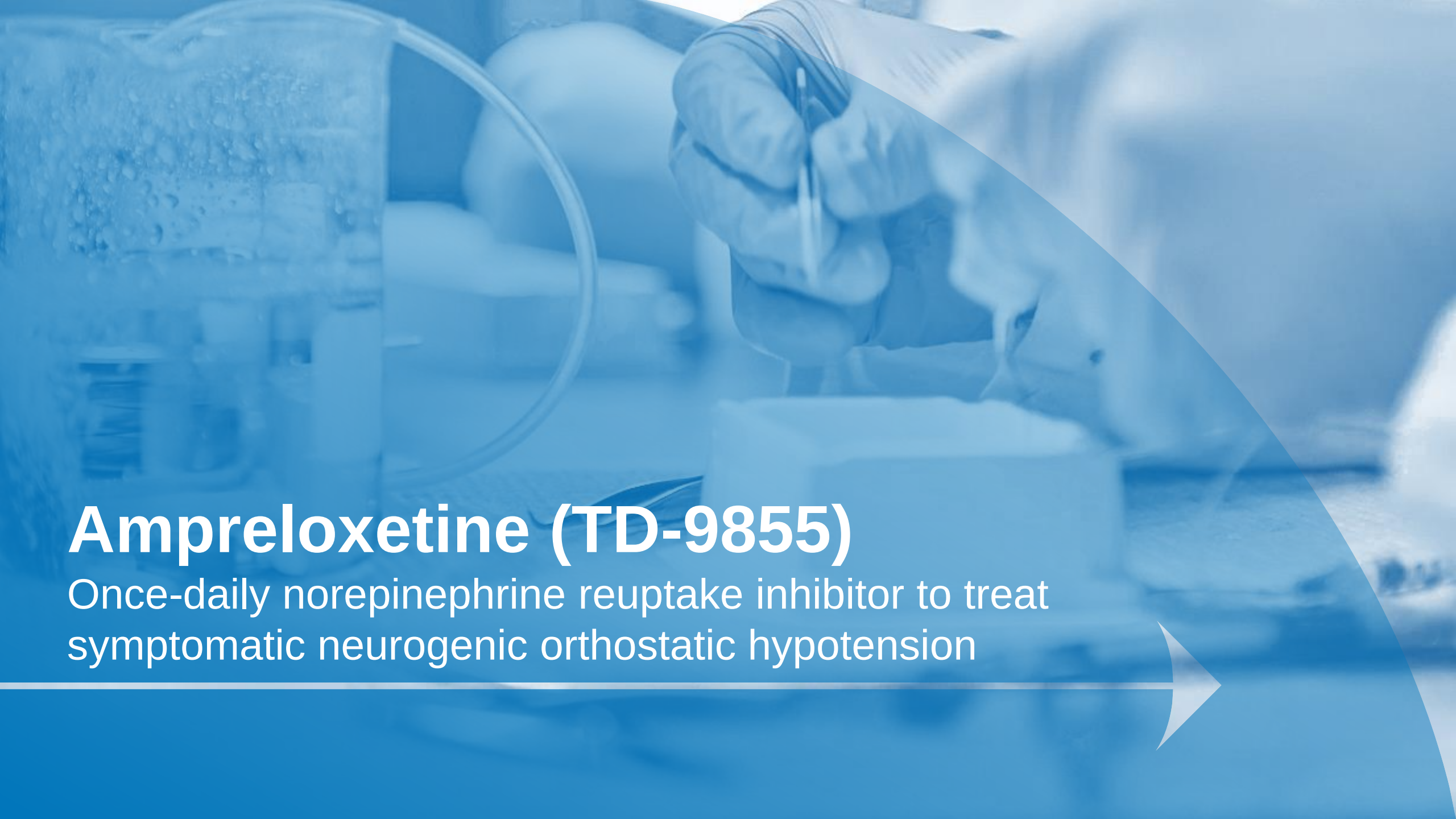


Ampreloxetine (TD-9855)

Once-daily norepinephrine reuptake inhibitor to treat symptomatic neurogenic orthostatic hypotension

Reduced quality of life, significant caregiver burden and limited therapeutic options for symptomatic nOH patients

PATIENT POPULATION

~350K US patients

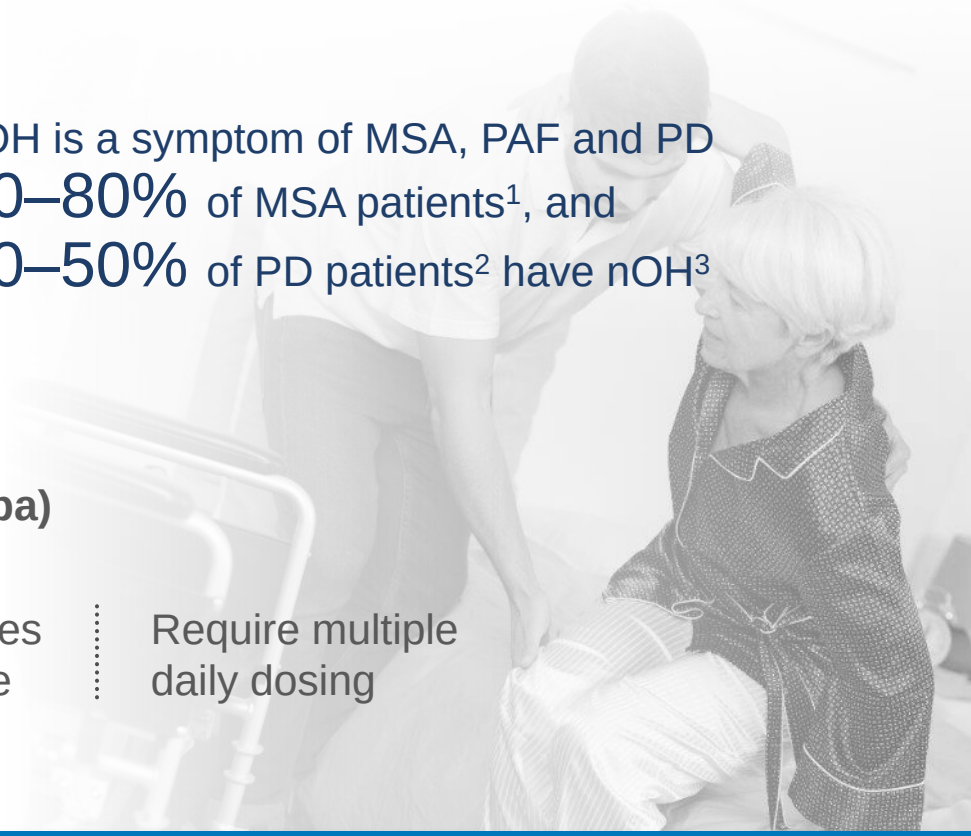
~700K APAC patients

~700K EU patients

nOH is a symptom of MSA, PAF and PD

70–80% of MSA patients[1], and

30–50% of PD patients[2] have nOH[3]



CURRENT TREATMENT LANDSCAPE

Current treatments (midodrine, fludrocortisone, droxidopa) have significant limitations

- Subset of patients do not respond
- None demonstrate durable effect
- Safety profiles that limit use
- Require multiple daily dosing

STRATEGIC OPPORTUNITY

Ampreloxetine

Designed to reduce symptoms of nOH by prolonging the effect of endogenous norepinephrine with the potential to provide a meaningful and durable symptom improvement to underserved patients

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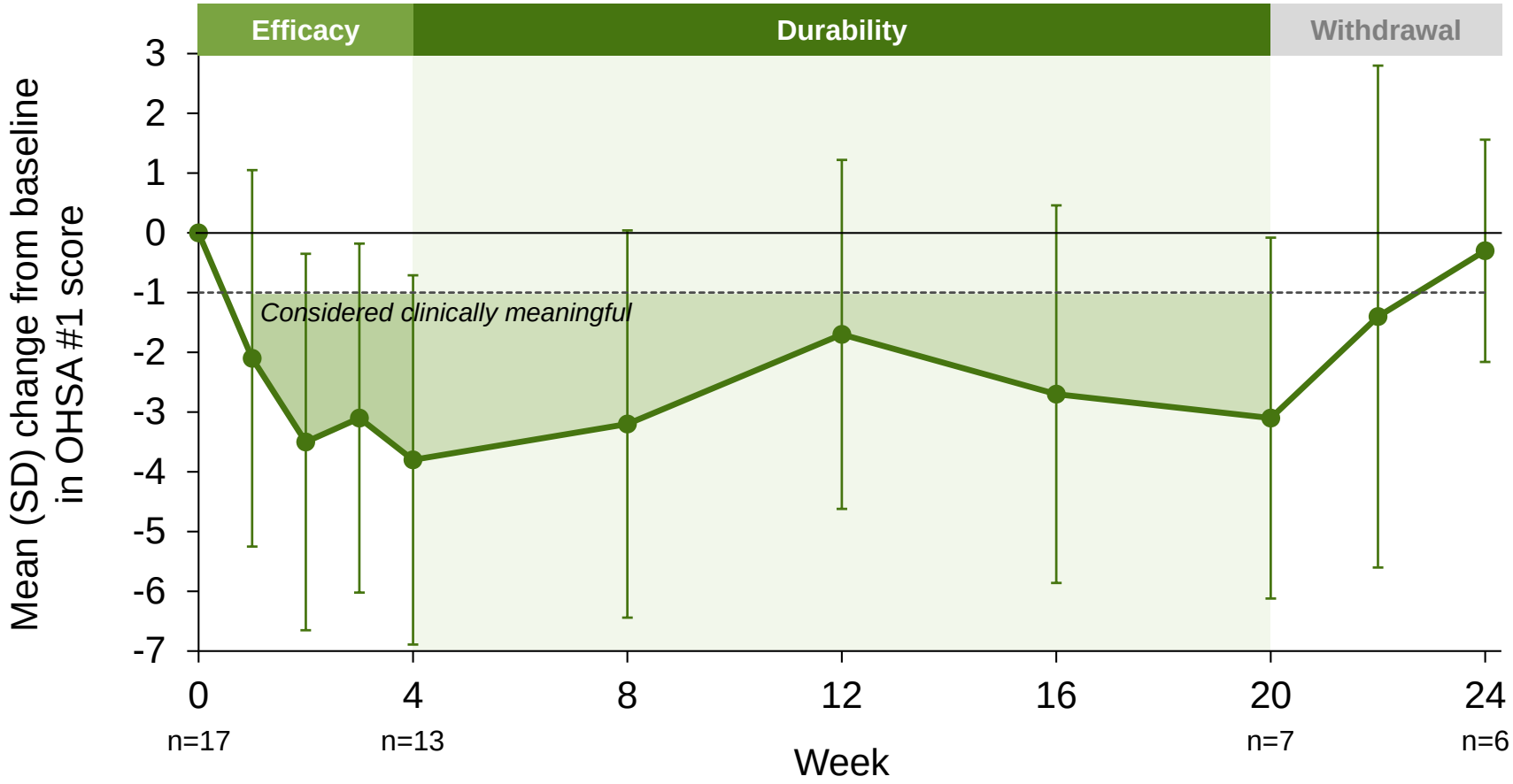
Medicines That Make a Difference

1. Mathias C, et al. J Neurol 1999;246:893-8.
2. Ha AD, et al. Parkinsonism Relat Disord 2011;17:625-8.
3. Not all patients are treated with prescription medication.
APAC, Asian and Pacific; MSA, multiple system atrophy; PAF, pure autonomic failure; PD, Parkinson's Disease; nOH, neurogenic orthostatic hypotension

Ampreloxetine: Potential to provide meaningful and durable symptom improvement to underserved patients

Ampreloxetine

Phase 2 data in nOH; 20 weeks of treatment



Baseline OHSA #1 (Orthostatic Hypotension Symptom Assessment Question 1) >4 points.
Negative change indicates improvement in symptoms; improvement of 1 point is defined as the MCID (minimal clinically important difference).
nOH, neurogenic orthostatic hypotension; SD, standard deviation.

Ampreloxetine: Potential to provide meaningful and durable symptom improvement to underserved patients

Phase 3 Registrational Program

Study 169: 4 weeks (N=188)
Randomized, double-blind, placebo-controlled, parallel group

SEQUOIA
An ampreloxetine study for nOH

Study 170: 22 weeks (N=254)
Randomized 6-week withdrawal phase

Completers → **Extension study: 3 years**

REDWOOD
An ampreloxetine study for nOH

- Phase 3 registrational program ongoing; 4-week efficacy data expected Q3 2021

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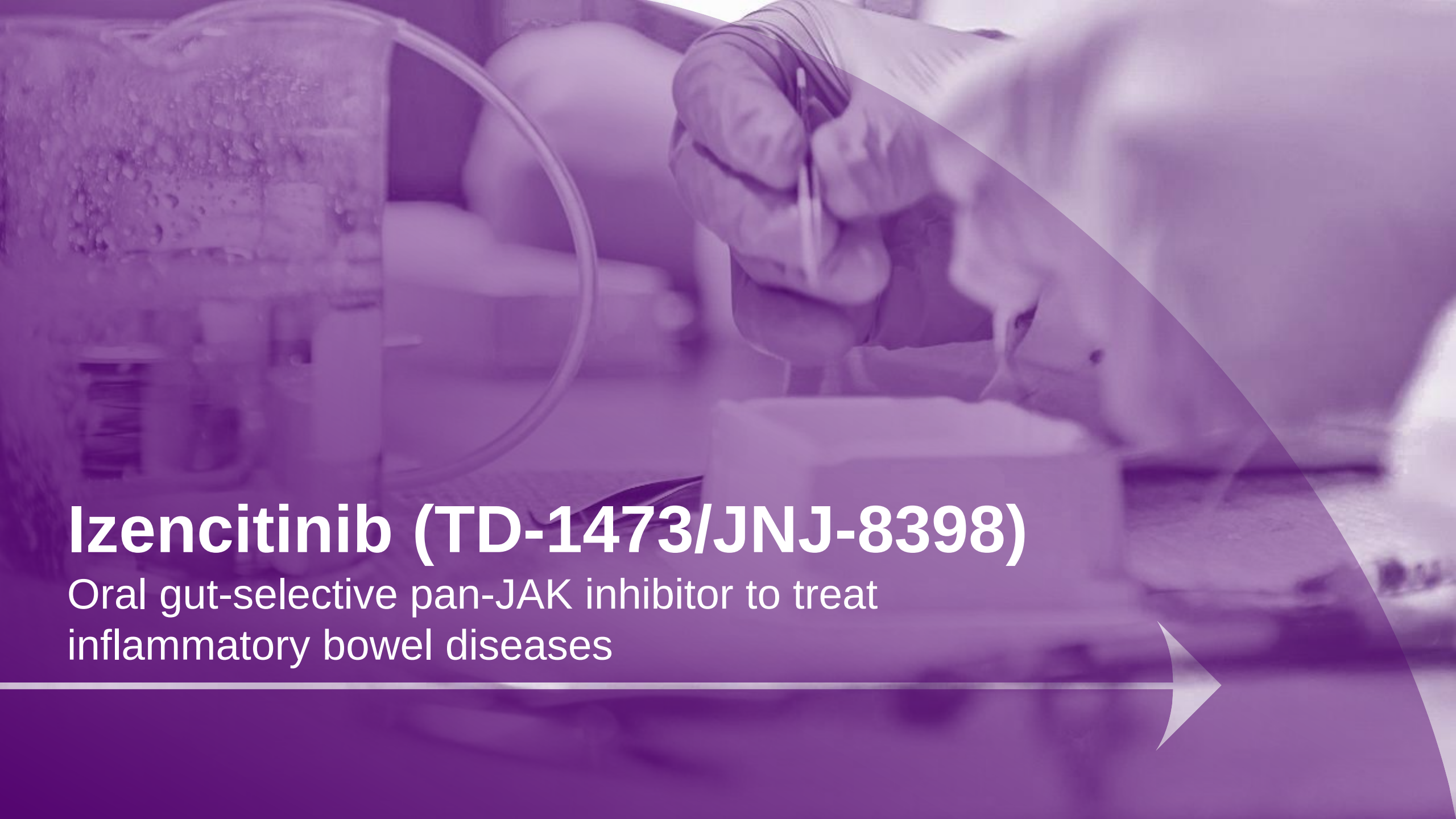
Medicines That Make a Difference

All subjects who complete Study 169 may enroll into 170; all subjects who complete 170 may enroll into extension study/171.
Baseline OHSA #1 (Orthostatic Hypotension Symptom Assessment Question 1) >4 points. Negative change indicates improvement in symptoms; improvement of 1 point is defined as the MCID (minimal clinically important difference).
Discontinuation rates for the Phase 3 trials as of Jan. 2020: 0169 – 5.3 percent; 0170 – 33.3 percent

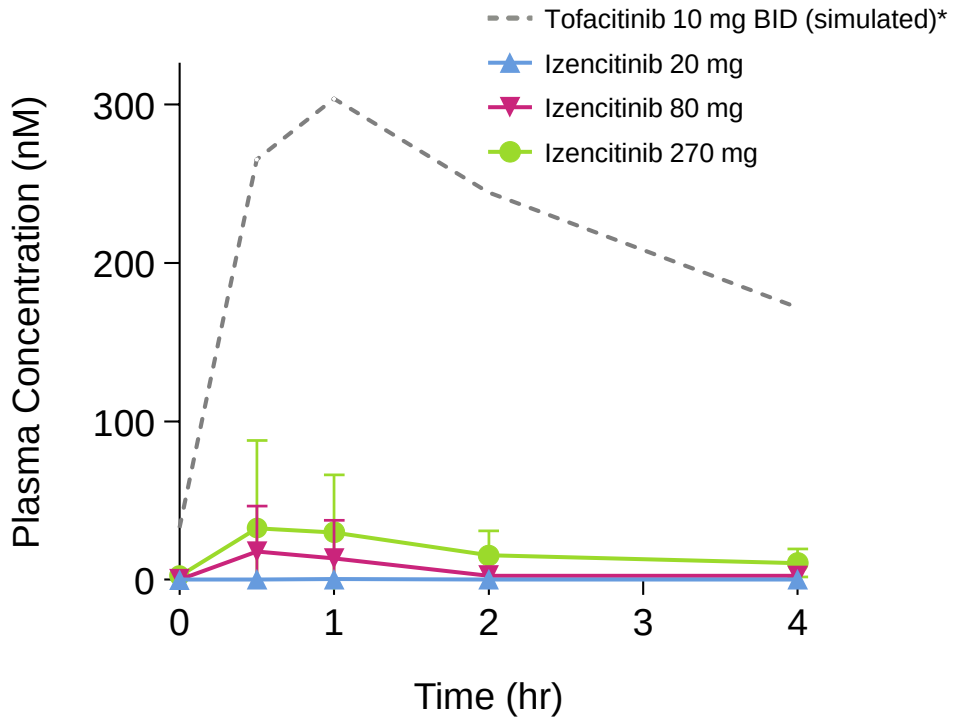


Izencitinib (TD-1473/JNJ-8398)

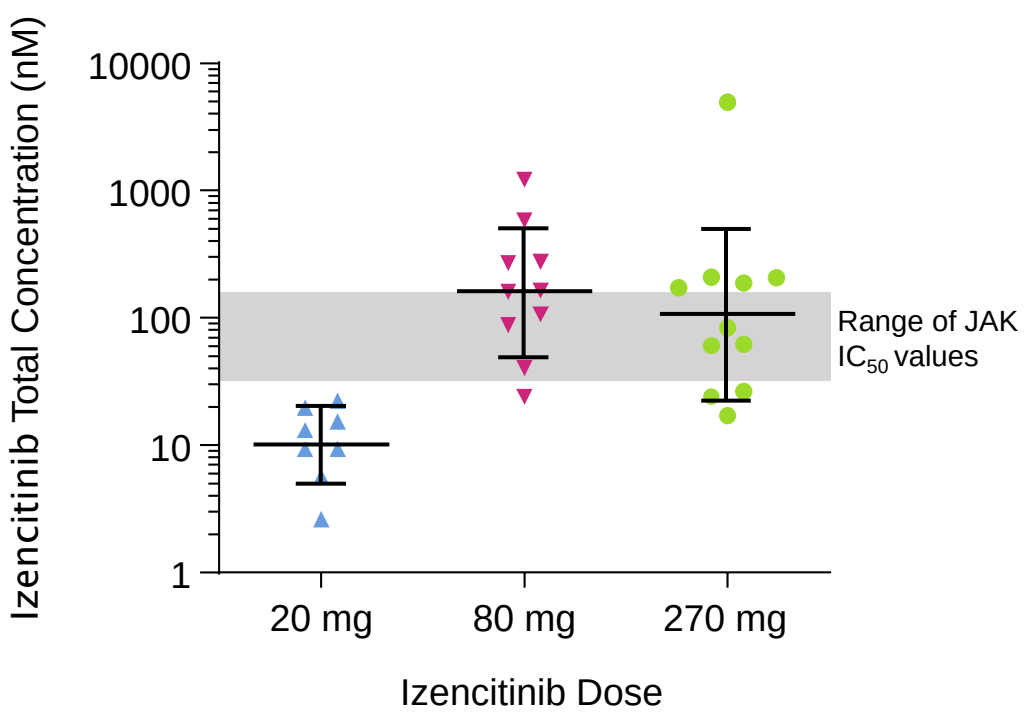
Oral gut-selective pan-JAK inhibitor to treat inflammatory bowel diseases

Izencitinib results in low systemic exposures but high colonic concentrations above JAK inhibition levels

Steady State Plasma Izencitinib PK in Patients with UC



Colonic Tissue Izencitinib Concentrations



- >10-fold lower systemic exposure with izencitinib vs 10 mg BID tofacitinib (based upon published data)
- Tissue exposures at 80 and 270 mg of izencitinib within the range of cellular JAK IC_{50} values

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Medicines That Make a Difference

Sandborn et al. J Crohns Colitis;2020:14:1202-13 and Sandborn et al. DDW 2019; oral presentation.
*Simulated tofacitinib concentrations extracted from J Pharmacol Exp Ther 2014;348:165-73.
BID, twice daily; hr, hour; IC_{50}, concentration to produce 50% maximal inhibition; PK, pharmacokinetics.

Pre-clinical and Phase 1b results led to late stage IBD studies with izencitinib

Favorable data from this innovative exploratory Phase 1b study[1]

- Confirmed gut selectivity
  - High colonic concentration with low systemic drug exposures, consistent with pre-clinical data
  - For the goal of maximized therapeutic index
- Demonstrated numerically higher rates of clinical outcomes with reductions in biomarkers after only 4 weeks of treatment
  - Numerical improvements in rectal bleeding and mucosal healing
- Led to decision to proceed with development of izencitinib

Global collaboration with **Janssen Biotech, Inc.** leverages joint development expertise with the potential for up to a total of $1B in milestone payments to **TBPH** plus profit-share in US (33% TBPH, 67% Janssen) and double-digit royalties to TBPH ex-US[2]

Crohn's disease (0173)

DIONE STUDY

Phase 2: 12 weeks (N=160)
Dose-finding induction
→ **Active treatment extension: 48 weeks**

Ongoing; data expected Q3 2021

Ulcerative colitis (0157)

RHEA PROGRAM

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

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

Responders → **Maintenance phase[3]: 44 weeks**

Long-Term Safety Study[4]: 3 years (0164)

Ongoing; Phase 2b data expected Q3 2021

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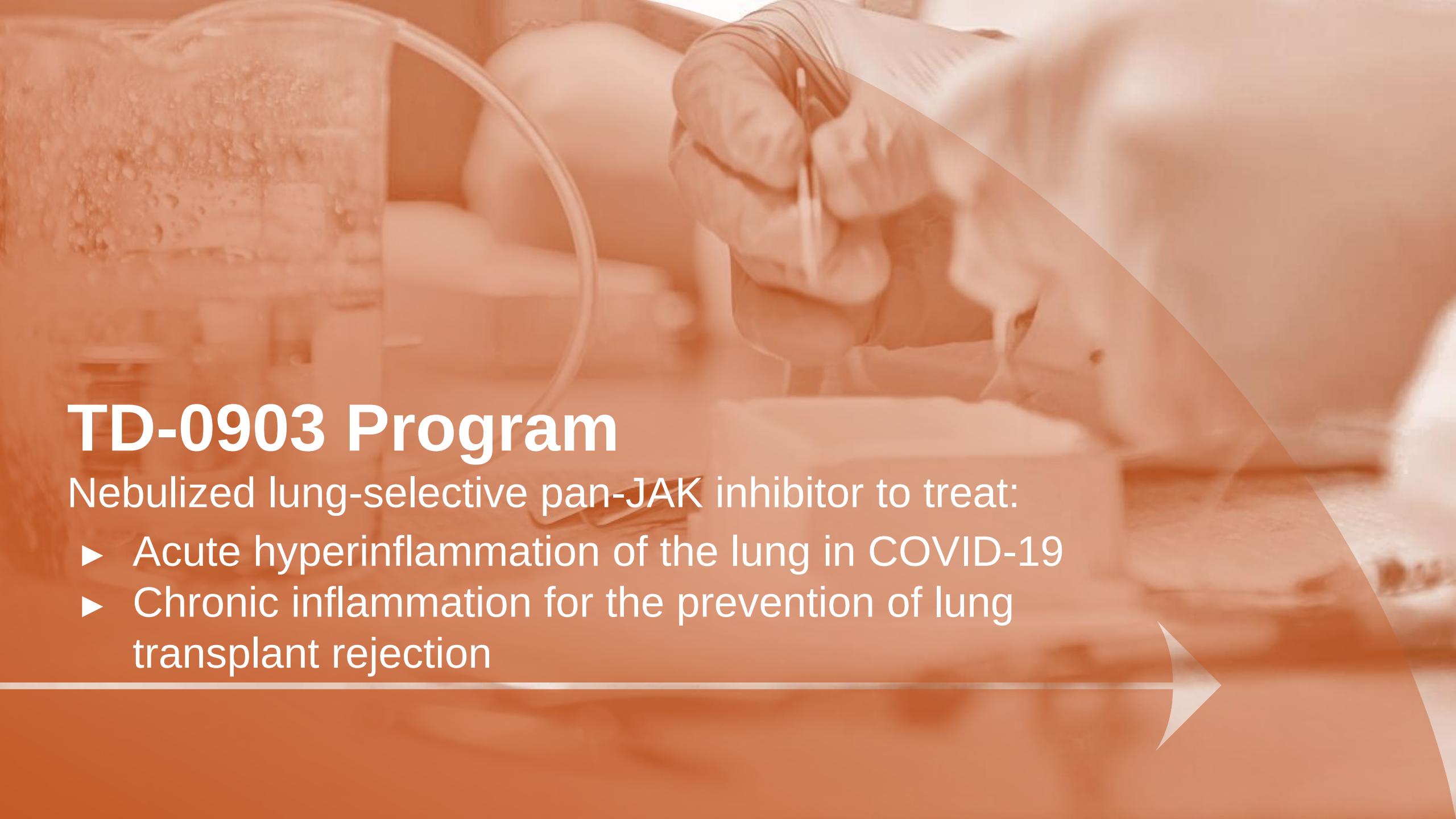
Medicines That Make a Difference

1. Sandborn et al. J Crohns Colitis;2020:14:1202-13.
2. Deal value up to $1B in payments to TBPH, including $100M upfront previously received; subject to Janssen opt-in.
3. Maintenance study will have induction responder patients re-randomized to active doses compared to placebo at 44 weeks.
4. Patients may enter the Long-Term safety study by completing or terminating Maintenance study due to loss of response.



TD-0903 Program

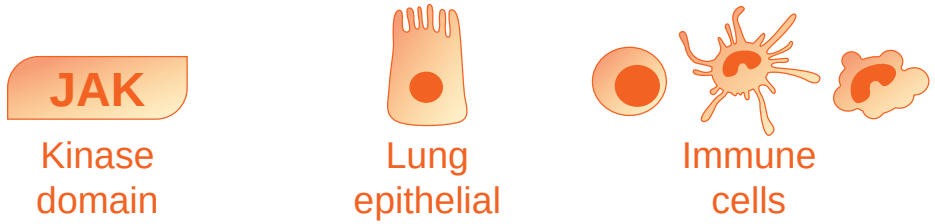
Nebulized lung-selective pan-JAK inhibitor to treat:

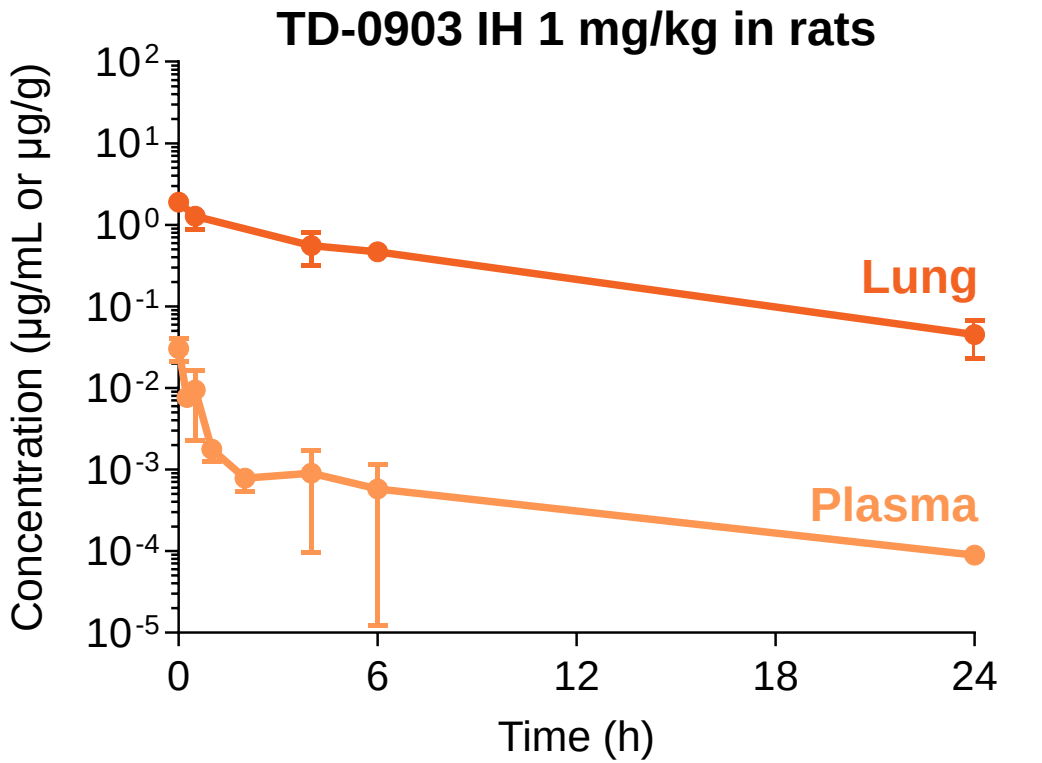
- Acute hyperinflammation of the lung in COVID-19
- Chronic inflammation for the prevention of lung transplant rejection

TD-0903: Lung-selective inhaled pan-JAKi

Aiming for maximal anti-inflammatory activity in pulmonary tissue while minimizing systemic exposure

- High affinity for JAK1, JAK2, JAK3, and Tyk2 kinase domains
- High potency for inhibition of cytokine-induced activation of JAK-STAT signaling pathways
  - *In vitro*: human epithelial and immune cells
  - *In vivo*: murine inhalation cytokine-challenge models
- Lung-selective design
  - High lung to plasma ratios
  - Rapid systemic clearance with no evidence of systemic immunosuppression
  - PK/PD modeling supports extended duration of action





BALF lymphocytes and relevant mediators inhibited by OA tool JAK inhibitor TR065925.
Based on internal data on file.

TD-0903: Development plan designed to progress rapidly

Phase 2: Hospitalized COVID-19 patients

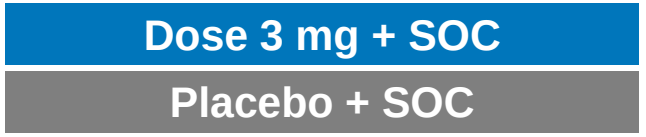
Part 1: Multiple-ascending dose study x 7 days

Repeat-dose safety, tolerability, PK, early dose-dependent efficacy

Data will report Q1 2021

Part 2: Parallel group study x 7 days

Proof-of-concept efficacy and safety



Data expected Q2 2021

SOC, standard of care; PK, pharmacokinetic

2021: Three Areas for Transformational Impact

YUPELRI®
revefenacin inhalation solution

Development Pipeline

Ampreloxetine
Izencitinib
TD-0903

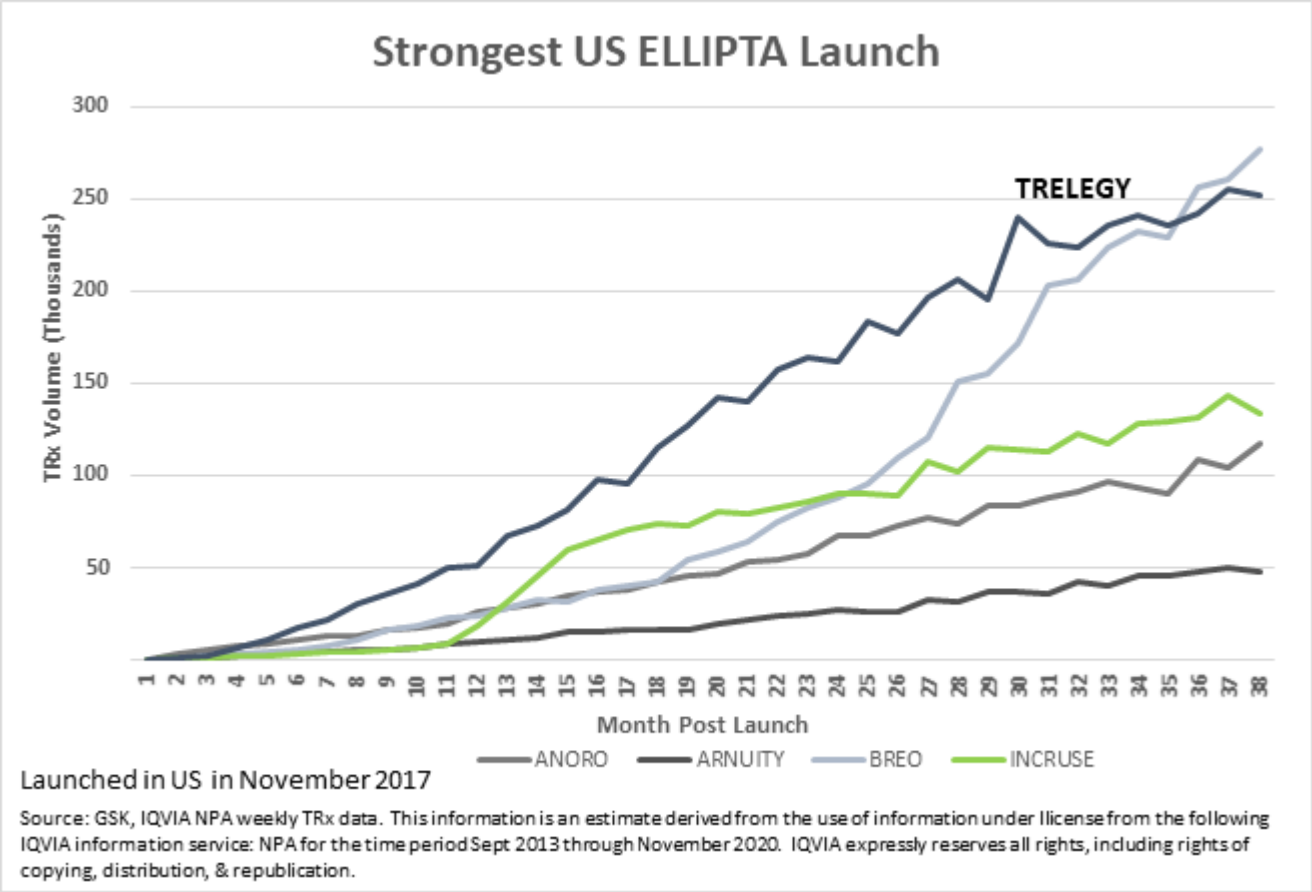
Changing Financial Profile

Economic interest

GSK’s TRELEGY ELLIPTA (FF/UMEC/VI):
First and only once-daily single inhaler triple therapy

Economic interest in GSK's TRELEGY

Upward-tiering royalties of ~5.5–8.5% of worldwide net sales[1]



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 November 2020. IQVIA expressly reserves all rights, including rights of copying, distribution, & republication.

TRELEGY

- Q3 net sales of £194MM (or $252MM)
- Sales up 45% year-over-year
- US asthma indication approved September 9, 2020, and launched 3rd Q
  - Results from the CAPTAIN study published in *The Lancet Respiratory Medicine*

Theravance Biopharma
Medicines That Make a Difference

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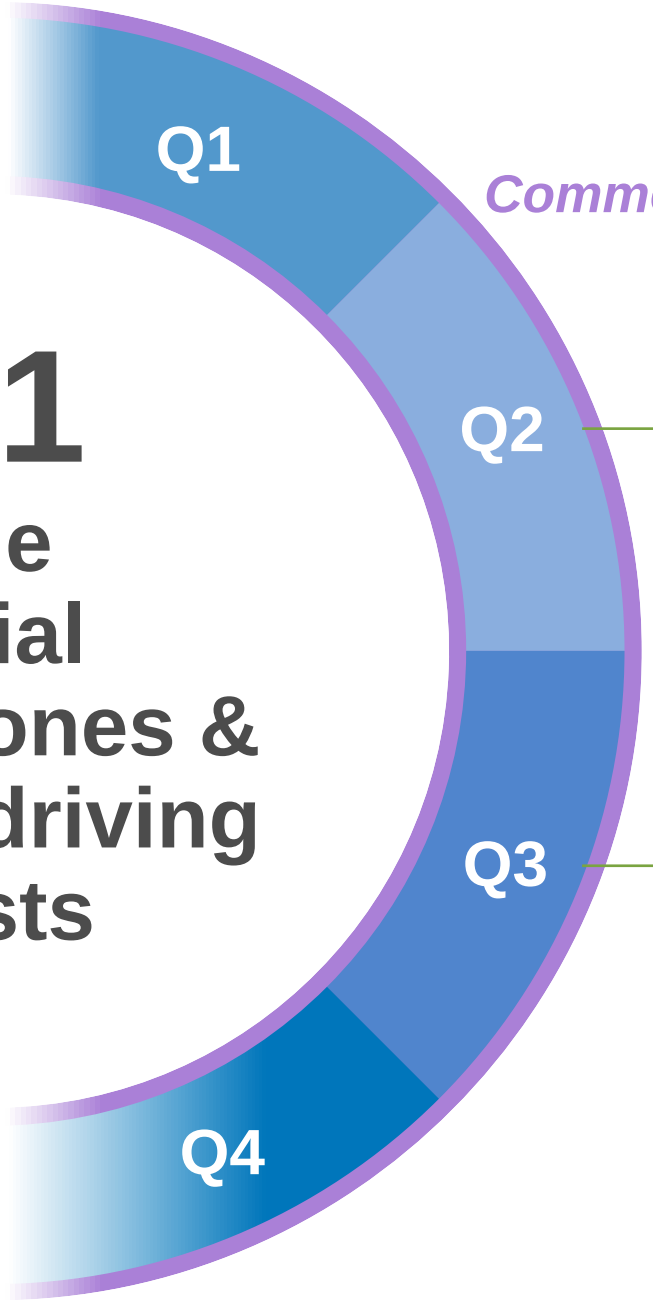

2021

Multiple potential milestones & value-driving catalysts

Commercial progress of YUPELRI® & GSK's TRELEGY

TOPLINE RESULTS

TD-0903
Phase 2 COVID-19

Ampreloxetine
SEQUOIA Phase 3 symptomatic nOH

Izencitinib
RHEA Phase 2b ulcerative colitis

Izencitinib
DIONE Phase 2 Crohn's disease

TBPH holds 85% economic interest in upward-tiering royalty stream of 6.5% – 10% payable by GSK (net of TRC expenses paid and the amount of cash, if any, expected to be used by TRC pursuant to the TRC Agreement over the next four fiscal quarters). 75% of TRC income received is pledged to service outstanding notes, 25% of royalties retained by TBPH. Our non-recourse Triple II 9.5% Fixed Rate Term Notes due on or before 2035. All statements concerning TRELEGY based on publicly available information. TRELEGY is FF/UMEC/VI or fluticasone furoate/umeclidinium/vilanterol; comprised of ICS, LAMA, and LABA, active components of Anoro (UMEC/VI).")

Creating transformational value for stakeholders

Innovative research yielding organ-selective molecular designed assets

Proven development and commercial expertise

Strategic partnerships

Strong capital position

Value driving catalysts

WE ARE THINKING OF YOUR NEXT BREATH

Theravance Biopharma is working toward the day when we can all breathe easier.

Theravance Biopharma®

Medicines That Make a Difference®

About YUPELRI® (revefenacin) inhalation solution

YUPELRI® (revefenacin) inhalation solution is a once-daily nebulized LAMA approved for the maintenance treatment of COPD in the US.

Market research by Theravance Biopharma indicates approximately 9% of the treated COPD patients in the US use nebulizers for ongoing maintenance therapy.[1] LAMAs are a cornerstone of maintenance therapy for COPD and YUPELRI® is positioned as the first once-daily single-agent bronchodilator product for COPD patients who require, or prefer, nebulized therapy. YUPELRI®'s stability in both metered dose inhaler and dry powder device formulations suggest that this LAMA could also serve as a foundation for novel handheld combination products.

1. TBPH market research (N=160 physicians); refers to US COPD patients.

YUPELRI® (revefenacin) inhalation solution

YUPELRI® inhalation solution is indicated for the maintenance treatment of patients with chronic obstructive pulmonary disease (COPD).

Important Safety Information (US)

YUPELRI is contraindicated in patients with hypersensitivity to revefenacin or any component of this product.

YUPELRI should not be initiated in patients during acutely deteriorating or potentially life-threatening episodes of COPD, or for the relief of acute symptoms, i.e., as rescue therapy for the treatment of acute episodes of bronchospasm. Acute symptoms should be treated with an inhaled short-acting beta2-agonist.

As with other inhaled medicines, YUPELRI can produce paradoxical bronchospasm that may be life-threatening. If paradoxical bronchospasm occurs following dosing with YUPELRI, it should be treated immediately with an inhaled, short-acting bronchodilator. YUPELRI should be discontinued immediately and alternative therapy should be instituted.

YUPELRI should be used with caution in patients with narrow-angle glaucoma. Patients should be instructed to immediately consult their healthcare provider if they develop any signs and symptoms of acute narrow-angle glaucoma, including eye pain or discomfort, blurred vision, visual halos or colored images in association with red eyes from conjunctival congestion and corneal edema.

Worsening of urinary retention may occur. Use with caution in patients with prostatic hyperplasia or bladder-neck obstruction and instruct patients to contact a healthcare provider immediately if symptoms occur.

Immediate hypersensitivity reactions may occur after administration of YUPELRI. If a reaction occurs, YUPELRI should be stopped at once and alternative treatments considered.

The most common adverse reactions occurring in clinical trials at an incidence greater than or equal to 2% in the YUPELRI group, and higher than placebo, included cough, nasopharyngitis, upper respiratory infection, headache and back pain.

Coadministration of anticholinergic medicines or OATP1B1 and OATP1B3 inhibitors with YUPELRI is not recommended.

YUPELRI is not recommended in patients with any degree of hepatic impairment.

OATP, organic anion transporting polypeptide.