
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

FORM 8-K

**Current Report Pursuant
to Section 13 or 15(d) of the
Securities Exchange Act of 1934**

Date of Report (Date of earliest event Reported): **August 3, 2021**

THERAVANCE BIOPHARMA, INC.

(Exact Name of Registrant as Specified in its Charter)

Cayman Islands
(State or Other Jurisdiction of
Incorporation)

001-36033
(Commission File Number)

98-1226628
(I.R.S. Employer Identification
Number)

**PO Box 309
Ugland House, South Church Street
George Town, Grand Cayman, Cayman Islands KY1-1104
(650) 808-6000**

(Addresses, including zip code, and telephone numbers, including area code, of principal executive offices)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary Share \$0.00001 Par Value	TBPH	NASDAQ Global Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

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.

Item 2.02. Results of Operations and Financial Condition.

On August 3, 2021, Theravance Biopharma, Inc. issued a press release and is holding a conference call regarding its financial results for the quarter ended June 30, 2021 and a business update. A copy of the press release is furnished as Exhibit 99.1 to this Current Report and a copy of materials that will accompany the call is furnished as Exhibit 99.2 to this Current Report. Additionally, a copy of an Appendix of additional materials is furnished as Exhibit 99.3 to this Current Report.

The information in Item 2.02 and in Item 9.01 of this Current Report on Form 8-K, including Exhibits 99.1, 99.2 and 99.3, is being furnished and shall not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Securities Exchange Act of 1934”), or otherwise subject to the liabilities of that Section, nor shall it be incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, except as expressly set forth by specific reference in such a filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

[99.1](#) [Press Release dated August 3, 2021](#)

[99.2](#) [Slide deck entitled Second Quarter 2021 Financial Results and Business Update](#)

[99.3](#) [Slide deck entitled Appendix August 3, 2021](#)

104 Cover Page Interactive Data File (cover page XBRL tags embedded within the Inline XBRL document)

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

THERAVANCE BIOPHARMA, INC.

Date: August 3, 2021

By: /s/ Andrew Hindman

Andrew Hindman

Senior Vice President and Chief Financial Officer



Theravance Biopharma, Inc. Reports Second Quarter 2021 Financial Results and Provides Business Update

- Ø Company reiterates Q3 2021 top-line results timing for ampreloxetine Phase 3 and izencitinib Phase 2b in ulcerative colitis
- Ø Company's implied 35% share of YUPELRI[®] (revefenacin) US net sales¹: \$14.6 million, up 38% from Q2 2020
- Ø TRELEGY[®] Q2 2021 global net sales hit \$405 million, up 68% from Q2 2020²

DUBLIN, IRELAND – AUGUST 3, 2021 – Theravance Biopharma, Inc. (“Theravance Biopharma” or the “Company”) (NASDAQ: TBPH) today reported financial results for the second quarter of 2021.

“We made strong progress in the second quarter. Our field team is energized and has recently been able to increase its face-to-face engagements with customers, driving continued sales volume and market share growth. As we look to the future for YUPELRI, we and our partner Viartis are initiating a controlled clinical study intended to provide data for a possible label update,” said Rick E Winningham, Chief Executive Officer. “We continued to execute across our clinical trials and eagerly anticipate study results this quarter and later this year/early next. 2021 is a pivotal year for Theravance Biopharma, and we are looking forward to the second half of the year furthering our mission of medicines that make a difference.”

Upcoming Clinical Milestones

- **Q3 2021: Izencitinib** (gut-selective oral pan-Janus kinase (JAK) inhibitor for inflammatory intestinal diseases) Phase 2b in ulcerative colitis (study 0157) – top-line results expected in Q3 2021.
- **Q3 2021: Ampreloxetine** (norepinephrine reuptake inhibitor) Phase 3 for symptomatic neurogenic orthostatic hypotension (study 0169) – enrollment complete and top-line results expected in Q3 2021.
- **Q4 2021/Q1 2022: Izencitinib** (gut-selective oral pan-JAK inhibitor for inflammatory intestinal diseases) Phase 2 in Crohn’s disease (study 0173) – top-line results expected in late Q4 2021/early Q1 2022.

Quarterly Highlights

- Ø **YUPELRI[®]** (revefenacin) inhalation solution, the first and only once-daily, nebulized bronchodilator approved in the U.S. for the maintenance treatment of patients with chronic obstructive pulmonary disease (COPD), continued to increase its share of the long-acting nebulized COPD market, increasing to 21% in April 2021, up from 19% in January 2021, and net sales increased by 38% year-over-year (Q2 2020 vs. Q2 2021).
 - o The Company, in collaboration with our partner Viartis, is also initiating a Phase 4 study comparing improvements in lung function in adults with severe to very severe COPD and suboptimal inspiratory flow rate following once-daily treatment with either YUPELRI[®] (revefenacin) delivered via standard jet nebulizer or tiotropium delivered via a dry powder inhaler (Spiriva[®] HandiHaler[®]). This study is aimed at helping to better inform decisions when physicians are designing a personalized COPD treatment plan with patients.

¹ While Viartis Inc. (“Viatris”) records the total YUPELRI net sales, the Company is entitled to a 35% share of the profits and losses pursuant to a co-promotion agreement with Viartis.

² As reported by Glaxo Group Limited or one of its affiliates (GSK); reported sales converted to USD; economic interest related to TRELEGY (the combination of fluticasone furoate, umeclidinium, and vilanterol (FF/UMEC/VI), jointly developed by GSK and Innoviva, Inc.) entitles the Company to upward tiering payments equal to approximately 5.5% to 8.5% on worldwide net sales of the product (net of Theravance Respiratory Company, LLC (TRC) expenses paid and the amount of cash, if any, expected to be used in TRC over the next four fiscal quarters). 75% of the income from the Company’s investment in TRC is pledged to service outstanding notes and 25% of income from the Company’s investment in TRC is retained by the Company.

- Ø **Nezulcitinib**, an investigational, inhaled, lung-selective, pan-JAK inhibitor in development for hospitalized patients with COVID-19, reported Phase 2 top-line results (read more about the data here).
- Ø On June 29, 2021, the Company closed a public offering of ordinary shares at a price to the public of \$15.00 per share, with gross proceeds of \$115.6 million, before deducting underwriting discounts and commissions and offering expenses.

Economic Interest

- **TRELEGY** (first once-daily single inhaler triple therapy for COPD and asthma), in which the Company holds an economic interest, posted second quarter 2021 global net sales of \$405 million (up from \$241 million, 68%, in the second quarter of 2020); Theravance Biopharma is entitled to tiered payments equal to approximately 5.5% to 8.5% of TRELEGY global net sales.³

Second Quarter Financial Results

- **Revenue:** Total revenue for the second quarter of 2021 was \$12.9 million, comprised of non-cash collaboration revenue of \$2.0 million primarily attributed to our global collaboration with Janssen and \$10.9 million in Viatriis collaboration revenue. Total revenue for the second quarter represents a \$2.1 million decrease over the same period in 2020.
- **YUPELRI:** The Viatriis collaboration revenue of \$10.9 million for the second quarter of 2021 represents amounts receivable from Viatriis and is comprised of the Company's 35% share of net sales of YUPELRI as well as its proportionate amount of the total shared costs incurred by the two companies. The non-shared YUPELRI costs incurred by Theravance Biopharma are recorded within operating expenses. While Viatriis records the total net sales of YUPELRI within its financial statements, our implied 35% share of net sales of YUPELRI for the second quarter of 2021 was \$14.6 million.
- **Research and Development (R&D) Expenses:** R&D expenses for the second quarter of 2021 were \$51.1 million, compared to \$62.4 million in the same period in 2020. Second quarter R&D expenses included total non-cash share-based compensation of \$7.3 million.
- **Selling, General and Administrative (SG&A) Expenses:** SG&A expenses for the second quarter of 2021 were \$25.9 million, compared to \$24.8 million in the same period in 2020. Second quarter SG&A expenses included total non-cash share-based compensation of \$7.6 million.
- **Operating Loss:** Operating loss for the second quarter of 2021 was \$64.1 million compared to \$72.2 million in the same period of 2020.

³ As reported by Glaxo Group Limited or one of its affiliates (GSK); reported sales converted to USD; economic interest related to TRELEGY (the combination of fluticasone furoate, umeclidinium, and vilanterol (FF/UMEC/VI), jointly developed by GSK and Innoviva, Inc.) entitles the Company to upward tiering payments equal to approximately 5.5% to 8.5% on worldwide net sales of the product (net of Theravance Respiratory Company, LLC (TRC) expenses paid and the amount of cash, if any, expected to be used in TRC over the next four fiscal quarters). 75% of the income from the Company's investment in TRC is pledged to service outstanding notes and 25% of income from the Company's investment in TRC is retained by the Company.



· **Cash Position:** Cash, cash equivalents and marketable securities totaled \$265.0 million as of June 30, 2021.

2021 Financial Guidance

· **Operating Expenses** (excluding share-based compensation): The Company reiterates that it expects full year 2021 R&D expense of \$195 million to \$225 million, and SG&A expense of \$80 million to \$90 million.

Conference Call and Live Webcast Today at 5 pm ET

Theravance Biopharma will hold a conference call and live webcast accompanied by slides today at 5 pm ET / 2 pm PT / 10 pm IST. To participate, please dial (855) 296-9648 from the U.S. or (920) 663-6266 for international callers, using the confirmation code 2615108. Those interested in listening to the conference call live via the internet may do so by visiting www.theravance.com, under the Investors section, Presentations and Events.

A replay will be available on www.theravance.com for 30 days through September 2, 2021. An audio replay will also be available through 8:00 p.m. ET on August 10, 2021, by dialing (855) 859-2056 from the U.S., or (404) 537-2406 for international callers, and then entering confirmation code 2615108.

About Theravance Biopharma

Theravance Biopharma, Inc. is a diversified biopharmaceutical company primarily focused on the discovery, development and commercialization of organ-selective medicines. Its purpose is to pioneer a new generation of small molecule drugs designed to better meet patient needs. Its research is focused in the areas of inflammation and immunology.

In pursuit of its purpose, Theravance Biopharma applies insights and innovation at each stage of its business and utilizes its internal capabilities and those of partners around the world. The Company applies organ-selective expertise to target disease biologically, to discover and develop medicines that may expand the therapeutic index with the goal of maximizing efficacy and limiting systemic side effects. These efforts leverage years of experience in developing lung-selective medicines to treat respiratory disease, including FDA-approved YUPELRI[®] (revefenacin) inhalation solution indicated for the maintenance treatment of patients with chronic obstructive pulmonary disease (COPD). Its pipeline of internally discovered programs is targeted to address significant patient needs.

Theravance Biopharma has 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.

For more information, please visit www.theravance.com.

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YUPELRI[®] is a registered trademark of Mylan Specialty L.P., a Viatris Company. Trademarks, trade names or service marks of other companies appearing on this press release are the property of their respective owners.



Forward-Looking Statements

This press release contains and the conference call will contain certain "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 goals, designs, 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 expenses, excluding share-based compensation and other financial results. 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 the conference call 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: disagreements with Innoviva, Inc. and TRC LLC, the uncertainty of arbitration and litigation and the possibility that the results of these proceedings could be adverse to the Company, additional future analysis of the data resulting from our clinical trial(s), 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, ineffective or not differentiated, 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. In addition, while we expect the effects of COVID-19 to continue to adversely impact our business operations and financial results, the extent of the impact on our ability to generate revenue from YUPELRI[®] (revefenacin), our clinical development programs (including but not limited to our later stage clinical programs for izencitinib and ampreloxtine), and the value of and market for our ordinary shares, will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time. These potential future developments include, but are not limited to, the ultimate duration of the COVID-19 pandemic, travel restrictions, quarantines, social distancing and business closure requirements in the United States and in other countries, other measures taken by us and those we work with to help protect individuals from contracting COVID-19, and the effectiveness of actions taken globally to contain and treat the disease, including vaccine availability, distribution, acceptance and effectiveness. Other risks affecting Theravance Biopharma are in the Company's Form 10-Q filed with the SEC on May 6, 2021 and other periodic reports filed 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.

Contact: Gail B. Cohen
Corporate Communications
917-214-6603



THERAVANCE BIOPHARMA, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands)

	June 30, 2021	December 31, 2020
	(Unaudited)	(1)
Assets		
Current assets:		
Cash and cash equivalents and short-term marketable securities	\$ 264,953	\$ 292,941
Receivables from collaborative arrangements	12,220	15,868
Amounts due from TRC, LLC	27,741	53,799
Prepaid clinical and development services	15,913	20,374
Other prepaid and current assets	12,353	10,359
Total current assets	333,180	393,341
Property and equipment, net	16,583	16,422
Operating lease assets	41,508	43,260
Equity in net assets of TRC, LLC	35,822	12,750
Restricted cash	833	833
Other assets	1,325	2,451
Total assets	<u>\$ 429,251</u>	<u>\$ 469,057</u>
Liabilities and Shareholders' Deficit		
Current liabilities		
Convertible senior notes due 2023, net	\$ 67,127	\$ 123,571
Non-recourse notes due 2035, net	227,499	226,963
Long-term operating lease liabilities	375,069	372,873
Other long-term liabilities	57,768	47,220
Shareholders' deficit	2,162	2,181
Total liabilities and shareholders' deficit	<u>(300,374)</u>	<u>(303,751)</u>
	<u>\$ 429,251</u>	<u>\$ 469,057</u>

(1) The condensed consolidated balance sheet as of December 31, 2020 has been derived from the audited consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2020.



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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(Unaudited)		(Unaudited)	
Revenue:				
Collaboration revenue	\$ 1,980	\$ 5,488	\$ 5,852	\$ 12,120
Licensing revenue	-	-	-	1,500
Viartis collaboration agreement	10,934	9,520	21,319	21,250
Total revenue	12,914	15,008	27,171	34,870
Costs and expenses:				
Research and development (1)	51,093	62,404	118,692	128,417
Selling, general and administrative (1)	25,931	24,780	56,481	51,105
Total costs and expenses	77,024	87,184	175,173	179,522
Loss from operations	(64,110)	(72,176)	(148,002)	(144,652)
Income from investment in TRC, LLC	21,926	21,381	38,473	34,896
Interest expense	(11,612)	(11,391)	(23,485)	(21,332)
Loss on extinguishment of debt	-	-	-	(15,464)
Interest and other income (expense), net	1,171	(662)	937	798
Loss before income taxes	(52,625)	(62,848)	(132,077)	(145,754)
Provision for income tax benefit (expense)	220	(39)	(7)	(186)
Net loss	\$ (52,405)	\$ (62,887)	\$ (132,084)	\$ (145,940)
Net loss per share:				
Basic and diluted net loss per share	\$ (0.80)	\$ (1.00)	\$ (2.03)	\$ (2.39)
Shares used to compute basic and diluted net loss per share	65,669	62,861	65,085	61,162

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

(In thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Research and development	\$ 7,315	\$ 8,098	\$ 15,236	\$ 15,963
Selling, general and administrative	7,626	8,487	15,537	15,898
Total share-based compensation expense	\$ 14,941	\$ 16,585	\$ 30,773	\$ 31,861



Second Quarter 2021 Financial Results and Business Update

August 3, 2021

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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 goals, designs, 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 expenses, 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, ineffective or not differentiated, 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, 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 May 6, 2021, and other periodic reports filed with the SEC.

Agenda

Introduction

Gail B. Cohen

Vice President, Corporate Communications

Overview

Rick E. Winningham

Chief Executive Officer

Development and Commercial Update

Richard A. Graham

Senior Vice President, Development

Frank Pasqualone

Senior Vice President, Chief Business Officer

Financial Update

Andrew A. Hindman

Senior Vice President, Chief Financial Officer

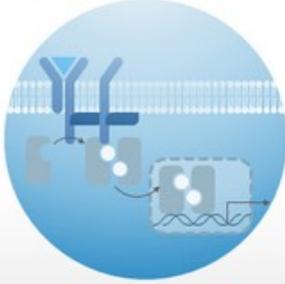
Closing Remarks

Rick E. Winningham

Chief Executive Officer

Theravance Biopharma difference: Targeting disease with organ selective medicines

Pathway



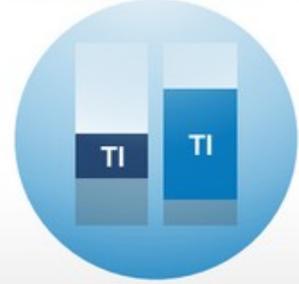
Target disease biology

Disease



Optimize effect in the organ
where the disease is active

Therapeutic Index

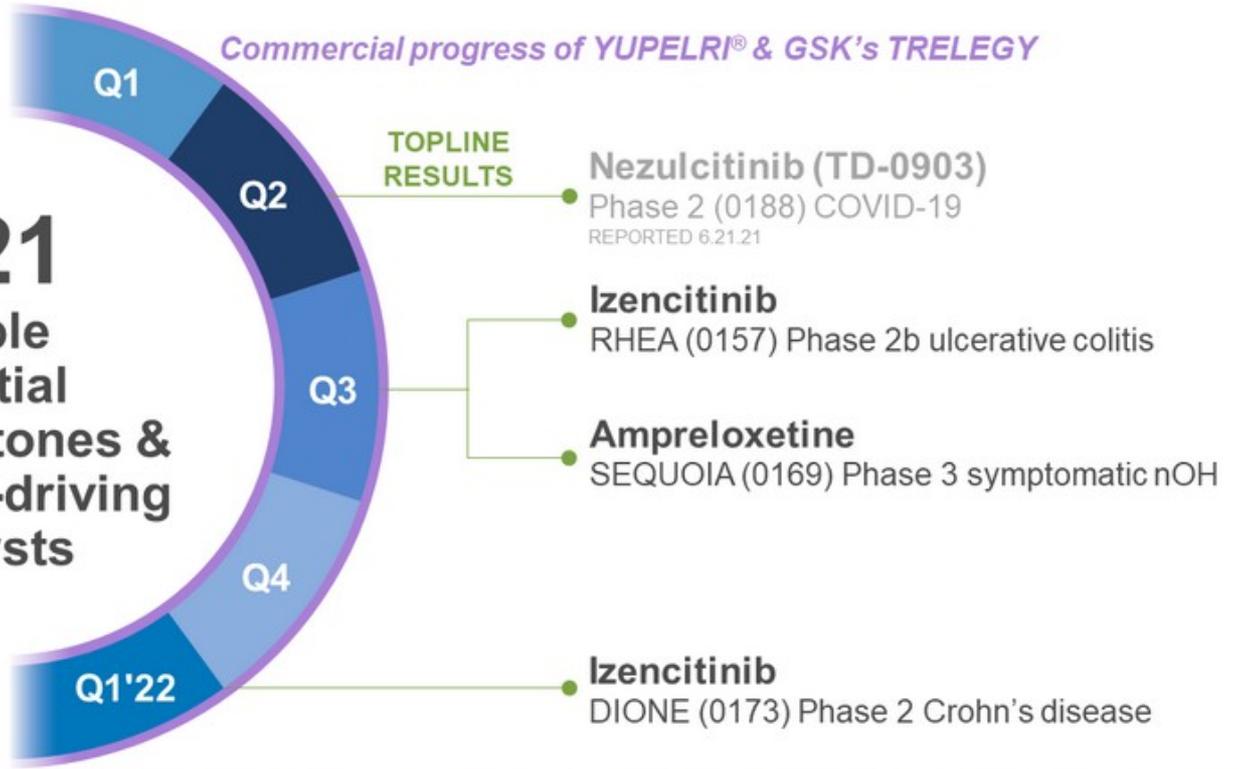


Expand TI with the goal of
maximizing efficacy and
limiting systemic side effects

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

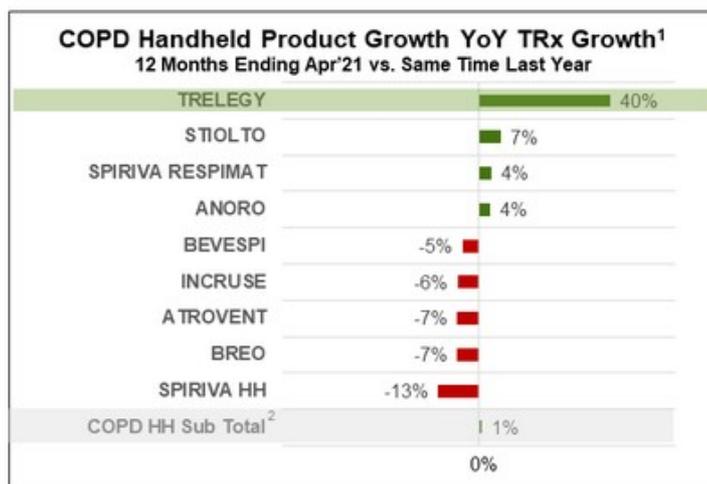
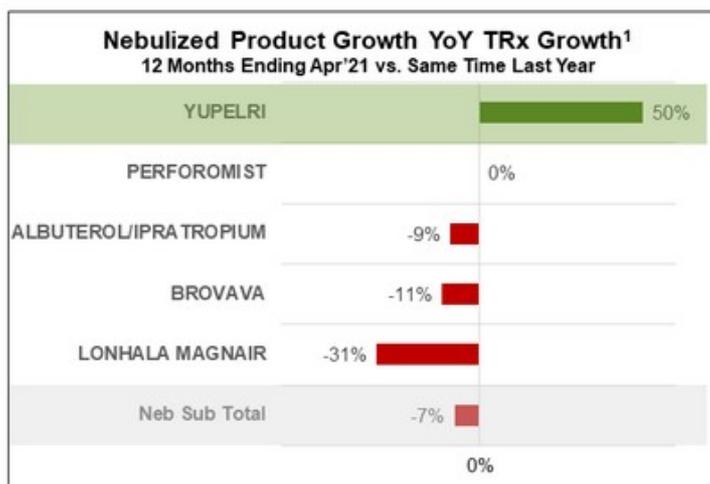
Commercial progress of YUPELRI® & GSK's TRELEGY

2021
Multiple potential milestones & value-driving catalysts



Respiratory market trends across nebulized and handheld

YUPELRI and TRELEGY with strong YoY growth while respective markets declined or remained flat





Izencitinib (TD-1473/JNJ-8398)

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

Izencitinib: Phase 2b Induction study in ulcerative colitis

RHEA PROGRAM Study 0157

Key inclusion criteria: Age ≥ 18 y with moderately-to-severely active UC with corticosteroid dependence or failure of conventional or biologic therapy

Geographies: South Africa, Asia, Australia, Europe, Middle East, North America

Randomization



Ph 2b dose-finding induction: once-daily oral dose for 8 weeks

Q3'21 Ph 2b Induction Study data readout

Ph 3 Induction Study starts after dose selection

Responders from Ph 2b and Ph 3 Induction



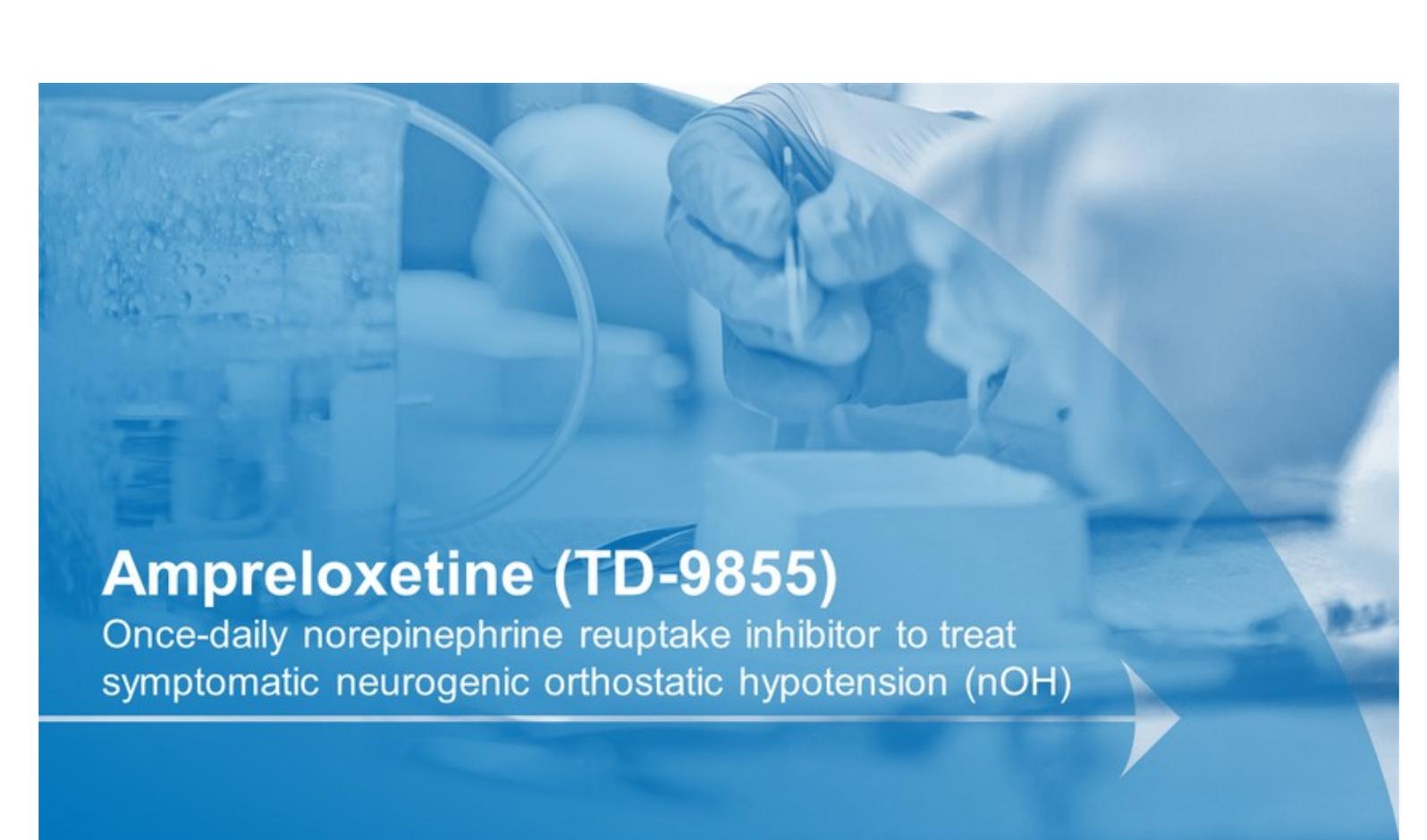
Ph 3 maintenance: once-daily oral dose for 44 weeks

Endpoints

- ▶ **Primary:**
 - Change from baseline in TMS at Week 8
- ▶ **Secondary:**
 - Clinical response and remission by aMS components
 - Standard disease surrogate biomarkers
 - Safety

Program Status

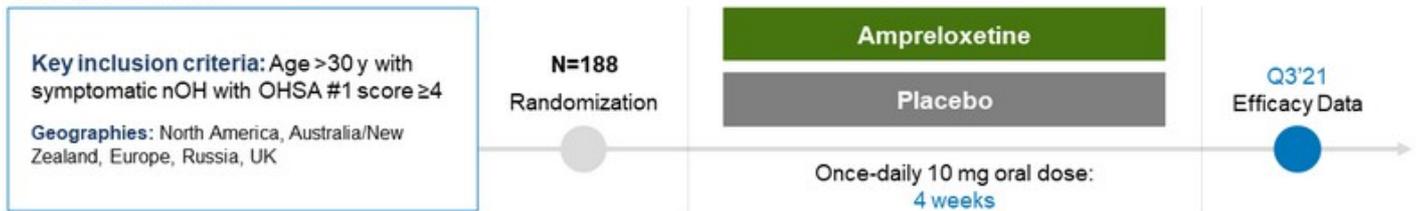
- ▶ Ph 3 Maintenance ongoing



Ampreloxetine (TD-9855)

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

Amprexetine: Phase 3 Randomized, double-blind, placebo-controlled study



Key inclusion criteria: Age >30 y with symptomatic nOH with OHSA #1 score ≥ 4
Geographies: North America, Australia/New Zealand, Europe, Russia, UK

N=188
Randomization

Amprexetine

Placebo

Once-daily 10 mg oral dose:
4 weeks

Q3'21
Efficacy Data

Objectives

- ▶ **Primary:** Change from baseline in OHSA #1 score at Week 4*
- ▶ **Secondary:**
 - Change from baseline in OHSA composite score over 4 wk
 - Change from baseline in OHDAS composite score over 4 wk
 - PGI-C at Week 4
 - Incidence of falls
 - Safety

Program Status

- ▶ Phase 3 registrational program ongoing
- ▶ All participants who complete Study 0169 are eligible for Study 0170



YUPELRI[®]
revefenacin inhalation
solution

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



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-very severe COPD¹

9% of COPD patients (~800,000) use nebulizers for ongoing maintenance therapy; 41% use nebulizers at least occasionally for bronchodilator therapy²

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



Companies co-promote under US profit/loss share

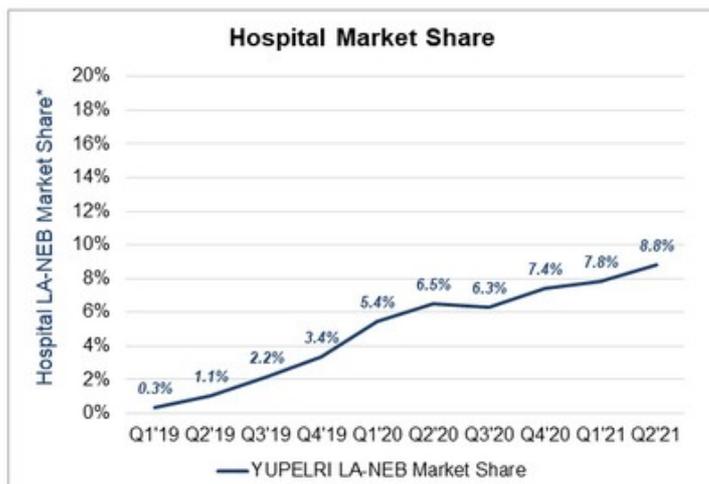
TBPH implied 35% of YUPELRI® US net sales by quarter



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

YUPELRI® hospital sales and community TRx trends

Continued market share growth across both the hospital and retail channels



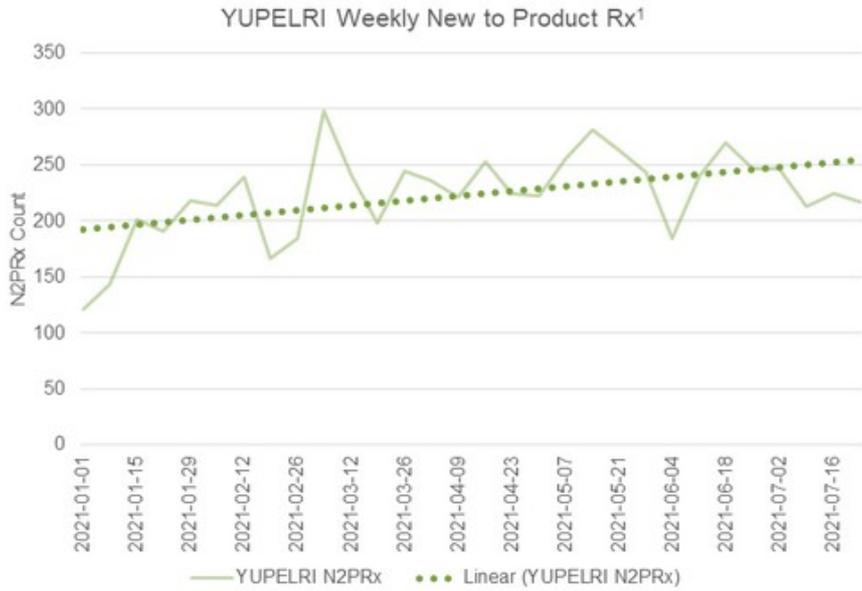
Most patients who receive YUPELRI® in the hospital are discharged with an Rx¹

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

**Community LA-NEB Market Share includes Retail + DME / Med B FFS through April '21

LA-NEB Market: YUPELRI, BROVANA, LONHALA, PERFORMIST

Positive growth trends for YUPELRI® continuing into 2H2021



YUPELRI

- ✓ 815 hospital accounts have ordered²
 - 69% have ordered more than once
- ✓ 91% formulary win rate³
- ✓ Highest number of formulary support presentations in Q2'21 since launch
- ✓ 75% commercial coverage⁴



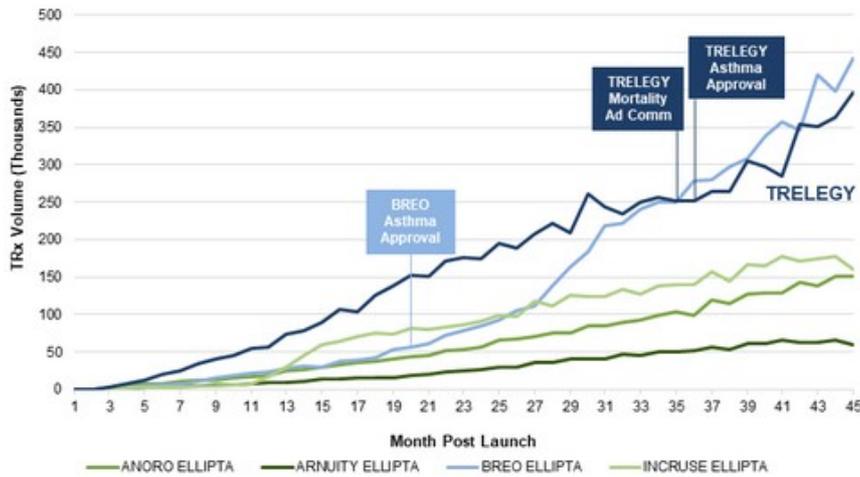
Economic interest

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 global net sales¹

Strongest US ELLIPTA Launch



Launched in US in November 2017

Source: GSK, Symphony Health Metys monthly TRx data for the time period Sept'13 to Jun'21.

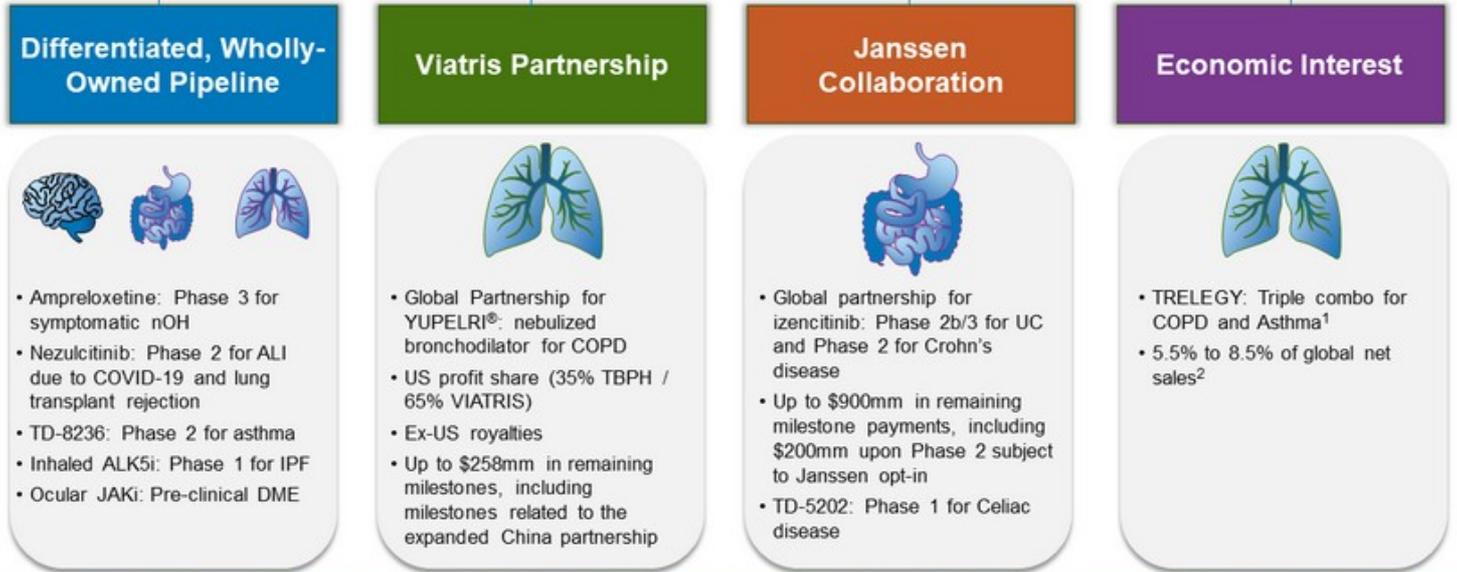
TRELEGY

- ✓ Q2 global net sales of \$405M
- ✓ Year-over-year sales growth of 68% from the same period in 2020
- ✓ 1H'21 sales were up 49% to \$746M driven by growth in all regions
 - ▶ US sales grew 51% to \$522M
 - ▶ Europe sales grew 21% to \$130M
 - ▶ Internationally, where TRELEGY asthma was approved in Japan in Q4'20, sales grew more than 100% to \$94M

Second quarter 2021 financial highlights

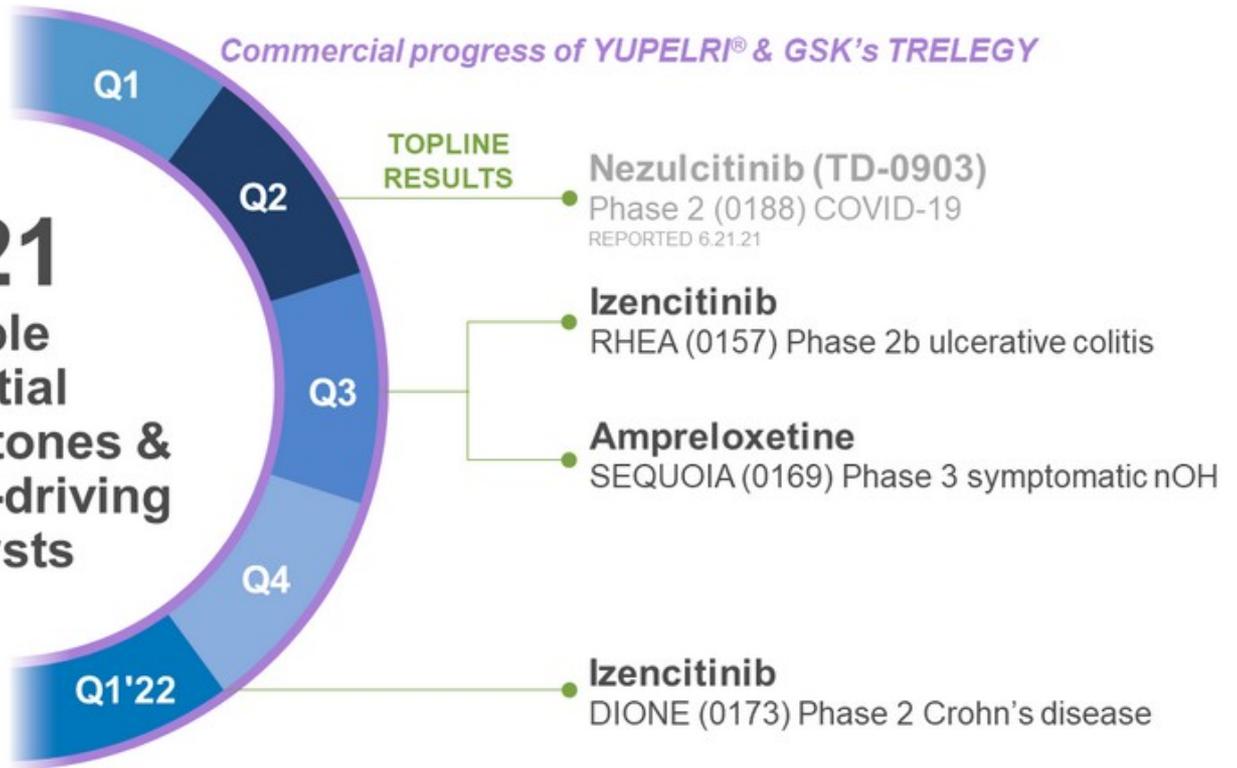
\$265.0 million cash¹ as of June 30, 2021

(\$, in thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(Unaudited)		(Unaudited)	
Revenue:				
Collaboration revenue	\$ 1,980	\$ 5,488	\$ 5,852	\$ 12,120
Licensing revenue	—	—	—	1,500
Viartis collaboration agreement	10,934	9,520	21,319	21,250
Total revenue	12,914	15,008	27,171	34,870
Costs and expenses:				
Research and development ²	51,093	62,404	118,692	128,417
Selling, general and administrative ²	25,931	24,780	56,481	51,105
Total costs and expenses	77,024	87,184	175,173	179,522
Loss from operations	(64,110)	(72,176)	(148,002)	(144,652)
Share-based compensation expense:				
Research and development	7,315	8,098	15,236	15,963
Selling, general and administrative	7,626	8,487	15,537	15,898
Total share-based compensation expense	14,941	16,585	30,773	31,861
Operating expense excluding share-based compensation:				
Research and development operating expense excluding share-based compensation	43,778	54,306	103,456	112,454
Selling, general and administrative operating expense excluding share-based compensation	18,305	16,293	40,944	35,207



Commercial progress of YUPELRI® & GSK's TRELEGY

2021
Multiple
potential
milestones &
value-driving
catalysts



Rick E Winningham
Chairman and Chief Executive Officer



Andrew A. Hindman
Senior Vice President, Chief Financial Officer



Frank Pasqualone
Senior Vice President, Chief Business Officer



Q&A Session

Richard A. Graham
Senior Vice President, Development





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.

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.



Medicines That Make a Difference®

Appendix

August 3, 2021

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Investment highlights



Innovative, commercial-stage biopharma with strong development track record

Decades-long track record of driving innovative products to market for diseases of high unmet need

Wholly-owned and partnered pipeline of differentiated assets

Diversified pipeline of organ-selective medicines for rare disease, respiratory, GI and ocular indications

Organ-selective approach serves as an engine for new opportunities

Three major clinical readouts expected by early-2022

Multiple near-term catalysts provide opportunity for value

Applying organ-selective expertise to biologically compelling pathways aiming to better serve patients

Strong base of cash flow, anchored by Yupelri and our economic interest in TRELEGY

Underlying stream of derisked, long-tailed cash flow

Topline growth poised for potential acceleration

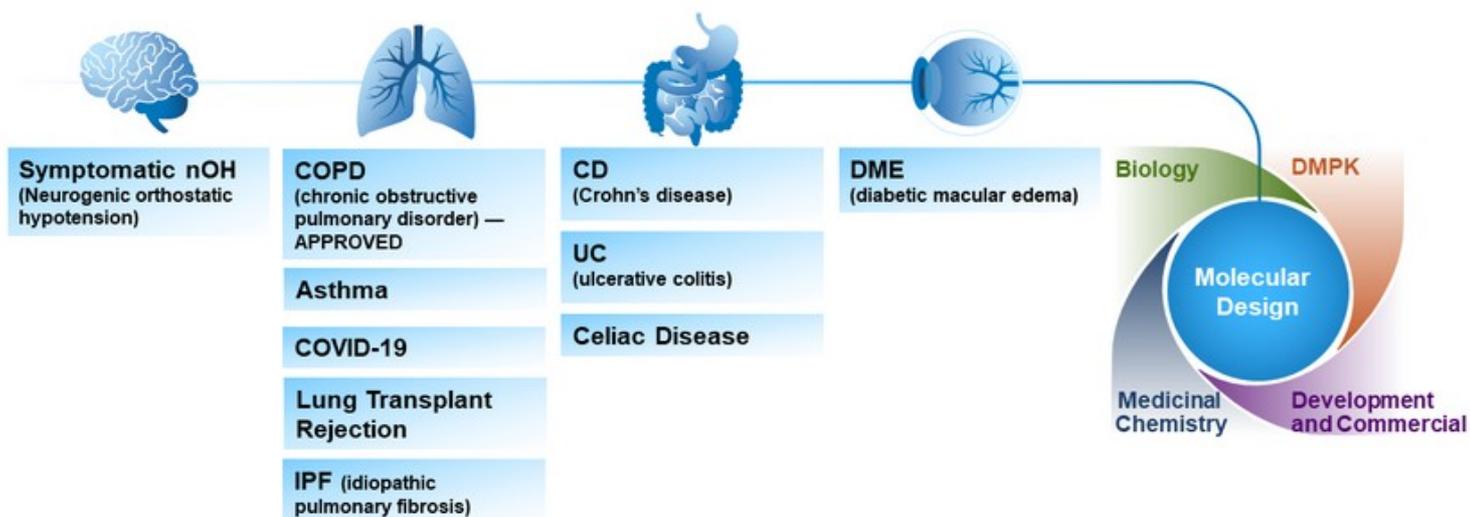
Multiple commercial and near-commercial products create growing revenue profile

Key programs for large patient populations supported by proven development and commercial expertise

Program	Indication	US Patients ¹	Research	Phase 1	Phase 2	Phase 3	Filed	Marketed	Collaborator
Amprexetine (TD-9855) NRI	Symptomatic nOH	~350k	Phase 3						Wholly-owned
Organ-Selective	Izencitinib (TD-1473) GI JAKi	UC	~900k	Phase 2b/3					Janssen Biotech, Inc.
		CD	~800k	Phase 2					
	TD-5202 Irreversible JAK3i	Celiac Disease UC CD	~5mm	Phase 1					
	YUPELRI® (revedfenacin) LAMA	COPD	>8mm	Marketed				VIATRIS™	
	Nezulcitinib (TD-0903) Inhaled JAKi	Acute and chronic lung inflammation	>32mm	Phase 2					
	TD-8236 Inhaled JAKi	Asthma	~25mm	Phase 2					Wholly-owned
Inhaled ALK5i	Idiopathic pulmonary fibrosis	~140k	Phase 1						

Program	Indication	US Patients ¹	Research	Phase 1	Phase 2	Phase 3	Filed	Marketed	Rights
Economic Interests	TRELEGY² FF/UMEC/VI	COPD	>8mm	Marketed					GSK & Innoviva, Inc.
		Asthma	~25mm	Marketed					
	Skin-selective JAKi	Dermatological diseases	>8mm	Research					Pfizer

Research and development portfolio of designed molecules: brain, lung, GI and eye



Early stage pipeline, value creation opportunities

Program	Indication	Patient Population	Status
TD-8236	Uncontrolled Asthma	~25mm Moderate and Severe* US Asthmatics ¹	Phase 2; evaluating back-up compounds
TD-5202	Celiac Disease Ulcerative Colitis Crohn's Disease	~5mm US Patients ^{2,3}	Phase 1 Complete
Inhaled ALK5i	IPF	~140k US Prevalence; currently orphan disease ^{4,5}	Phase 1
Ocular JAKi	Diabetic Macular Edema	~2.7mm US Prevalence ⁶	Preclinical



Izencitinib (TD-1473/JNJ-8398)

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

Izencitinib: a novel approach to JAK inhibition for IBD

IBD MARKET DYNAMICS

6.8mm global cases in 2017¹

1.6mm current US patients²

~900k US Ulcerative Colitis patients³
~800k current US Crohn's patients⁴

\$16bn global IBD treatment
market in 2018⁵

\$31bn US disease burden²

Biologics have become
mainstay of treatment in
moderate-to-severe patients

Favorable Phase 1b data
led to late-stage IBD studies

Phase 1b data⁶

- ▶ Demonstrated 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

IBD represents an area
of high unmet need

Izencitinib

*Preclinical and clinical data package
represents a potential breakthrough
approach for the treatment of IBD*

Oral, gut-selective agent

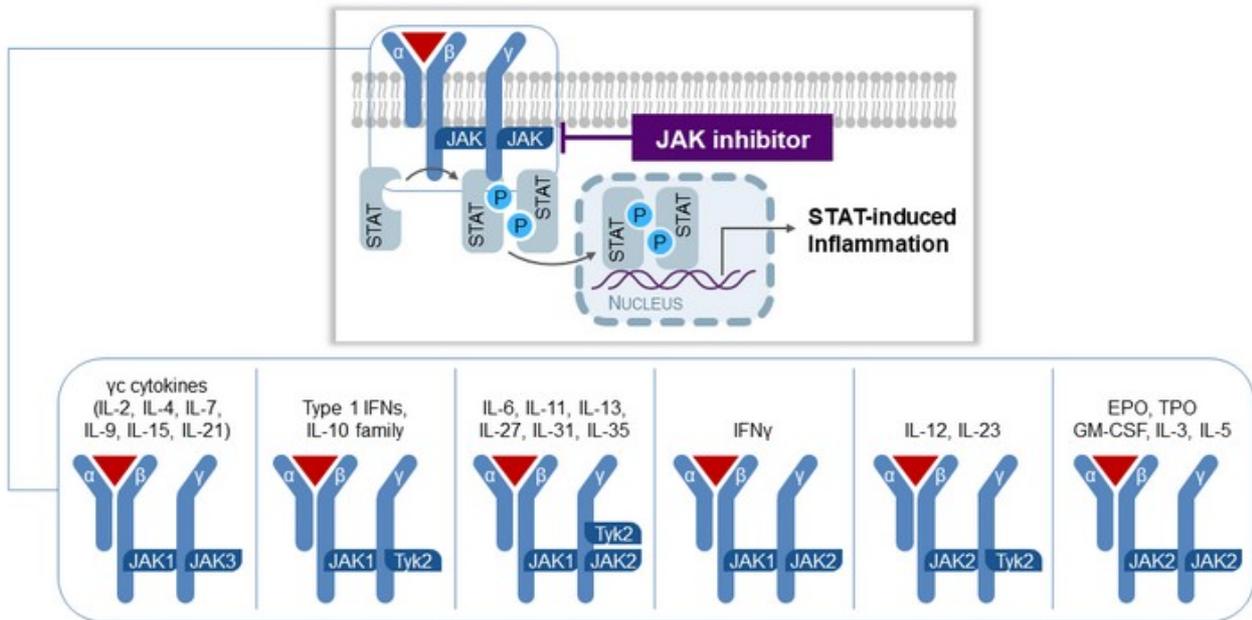
Potent inhibition of Tyk2

Anti-inflammatory activity in
disease model

Low systemic exposure with high
colonic concentrations

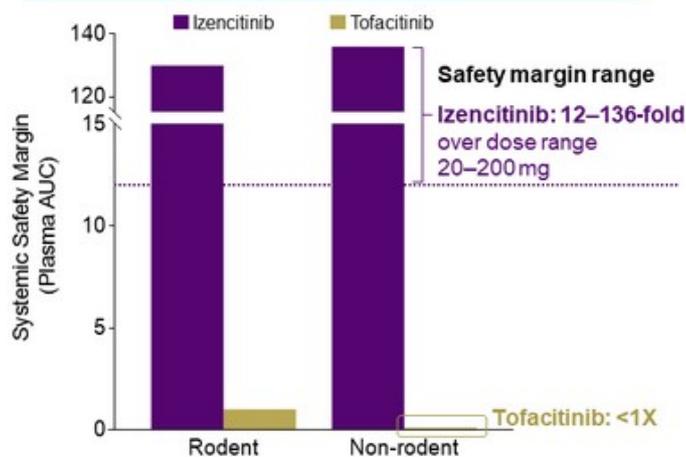
Favorable Phase 1b data

JAK-STAT pathway: orchestrating signaling of multiple pro-inflammatory cytokines

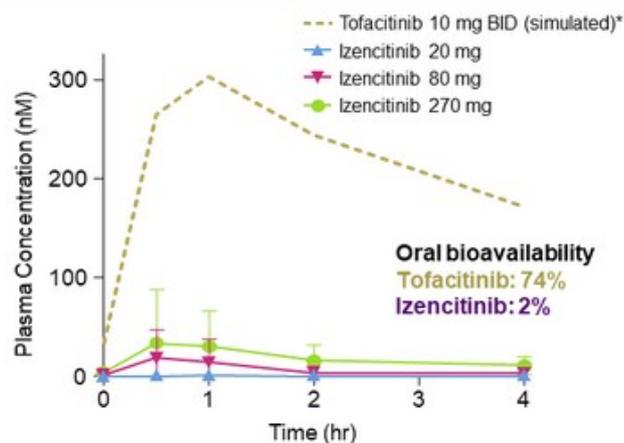


Izencitinib's oral, gut-selective, pan-JAK approach is designed to reduce systemic side effects

High margins of systemic safety in nonclinical studies



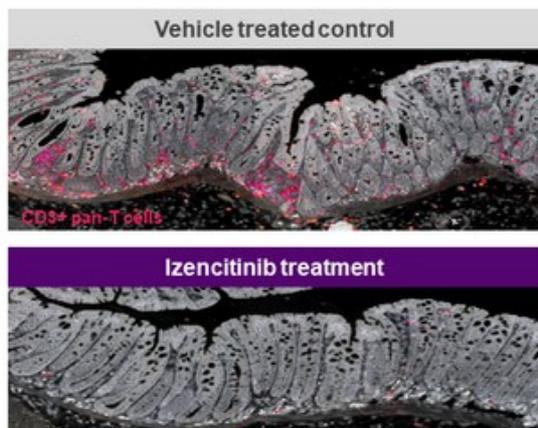
Low systemic plasma concentrations in UC patients



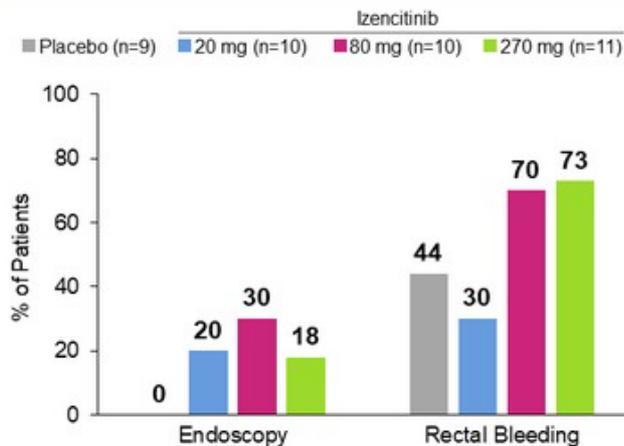
Gut selectivity confers low systemic exposure and offers the potential for reduced adverse effects

Izencitinib's oral, gut-selective, pan-JAK approach is designed to maximize efficacy in IBD

Blocks inflammation and penetrates deep within mouse colon



Demonstrates improvement in UC patients in Phase 1b



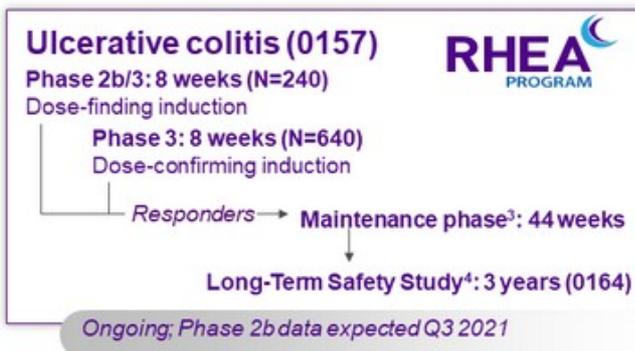
The gut-selective approach is intended to maximize concentration where it matters, at the site of action in the GI tract

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

Favorable data from this innovative exploratory Phase 1b study¹

- ▶ 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-US²



Izencitinib: Phase 2 study in Crohn's disease

DIONE Study 0173

Key inclusion criteria: Age ≥ 18 y with moderately-to-severely active CD (CDAI 220–450) with corticosteroid dependence or failure of conventional or biologic therapy

Geographies: South Africa, Asia, Australia, Europe, Middle East, New Zealand, UK, USA

N=160
Randomization



Ph 2 dose-finding induction:
once-daily oral dose for
12 weeks

Active treatment extension:
once-daily oral dose for
48 weeks

Late Q4'21
Early Q1'22
Topline
results

Endpoints

- ▶ **Primary:** Improvement in CDAI score at week 12 in patients with moderately to severely active CD
- ▶ **Exploratory:**
 - Clinical response measured by CDAI at 12 weeks
 - CDAI clinical remission at 12 weeks
 - SES-CD change from baseline to Week 12
 - Endoscopic response [Time Frame: 12 weeks]
 - SFAP clinical remission [Time Frame: 12 weeks]

Program Status

- ▶ Ongoing

Izencitinib: Phase 3 studies in ulcerative colitis

RHEA PROGRAM Study 0157

Key inclusion criteria: Age ≥18 y with moderately-to-severely active UC with corticosteroid dependence or failure of conventional or biologic therapy

Geographies: South Africa, Asia, Australia, Europe, Middle East, North America, Japan

Ph 3 Induction Study starts after dose selection from Ph 2b Induction

Randomization

N=640

Izencitinib

Placebo

Ph 3 dose-confirming induction: once-daily oral dose for 8 weeks

Responders from Ph 2b and Ph 3 Induction

Izencitinib

Placebo

Ph 3 maintenance: once-daily oral dose for 44 weeks

Endpoints

- ▶ **Primary:**
 - Induction & Maintenance: clinical remission by aMS components at Week 8 and Week 44
- ▶ **Secondary:**
 - Induction & Maintenance: endoscopic healing, symptomatic remission, clinical response by aMS, mucosal healing, maintenance of clinical response, corticosteroid-free remission, maintenance of clinical remission

Program Status

- ▶ Phase 3 Induction study to begin post Phase 2b completion
- ▶ Phase 3 Maintenance study ongoing

Izencitinib: Phase 3 study in ulcerative colitis

RHEA PROGRAM Study 0164

Key inclusion criteria: Eligible patients from Ph 3 Maintenance Study of Protocol 0157

Geographies: South Africa, Asia, Australia, Europe, Middle East, North America, Japan

Izencitinib

Long-term treatment
156 weeks (3 years)

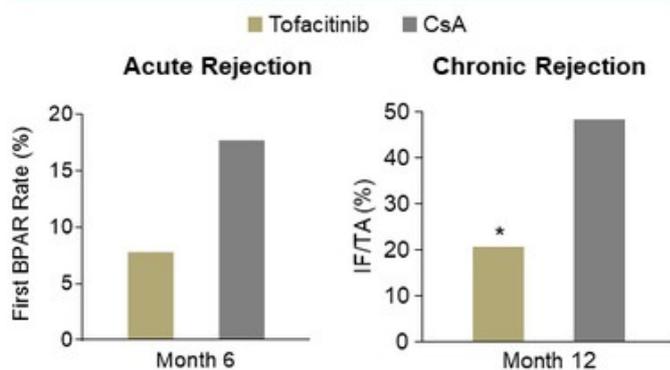
Assessments

- ▶ Safety and tolerability of izencitinib administered for up to 3 years in patients with moderate-to-severe UC after participation in the Protocol 0157 Maintenance Study

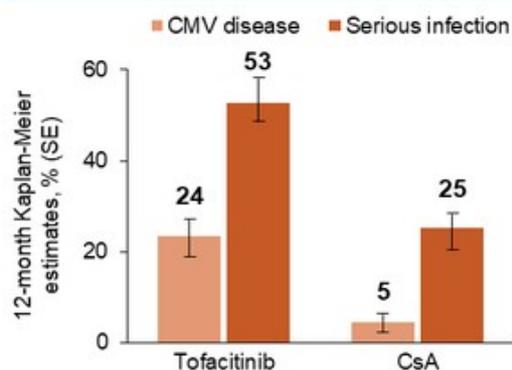
Pan-JAK inhibitors can prevent transplant rejections

Noninferiority trial of tofacitinib vs cyclosporine (CsA) in kidney transplant recipients¹

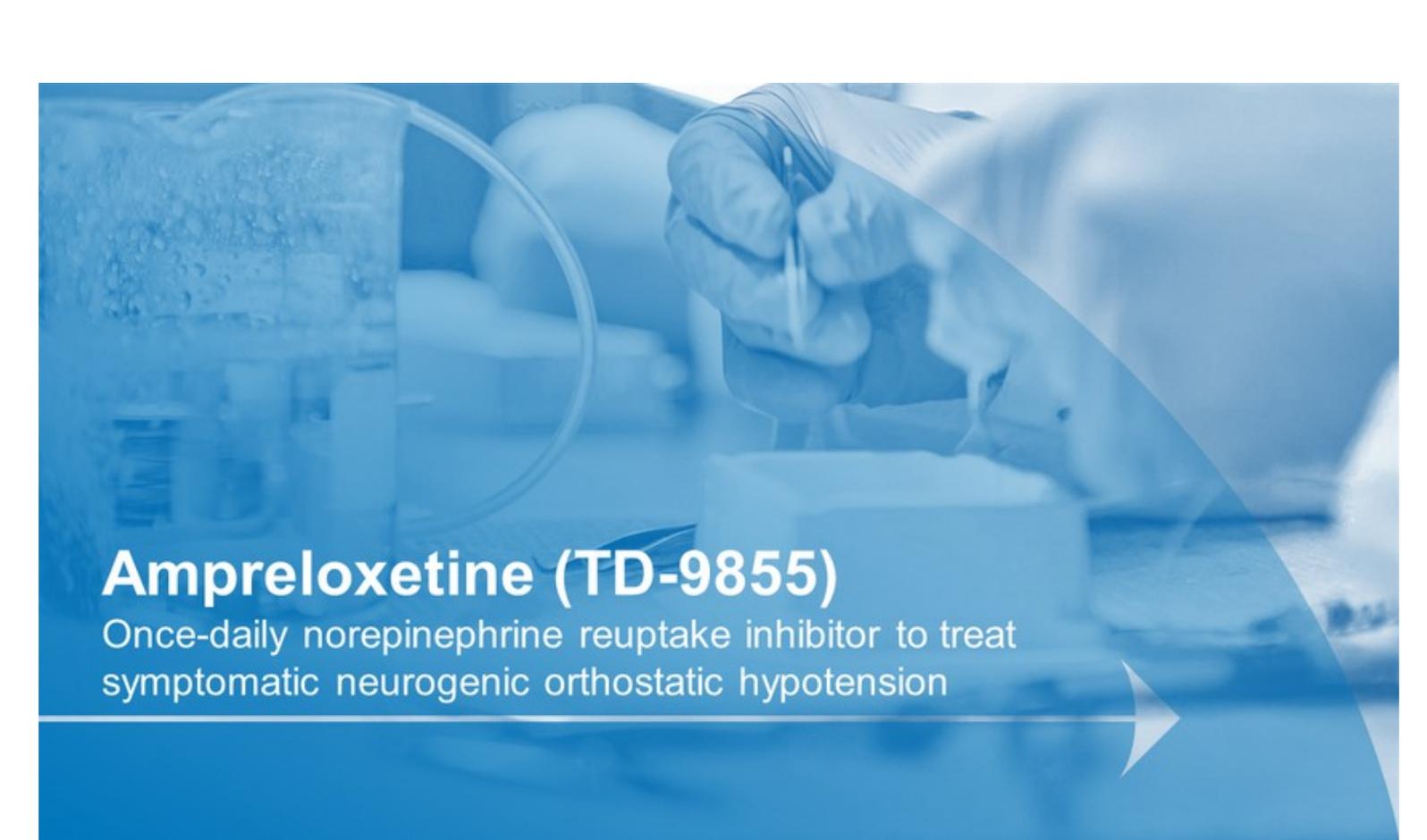
Tofacitinib is superior to CsA in efficacy measures



Increased infection risk with tofacitinib over CsA



- ▶ JAK inhibition was superior to cyclosporine in prevention of acute and chronic rejections
- ▶ Serious infections increased with systemic JAK inhibitors including CMV



Ampreloxetine (TD-9855)

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

Ampreloxetine: new approach in nOH

MARKET DYNAMICS

~350K US patients¹:
70–80% of MSA patients²
30–50% of PD patients³ have nOH⁴

Specialist network in place: concentrated group of neurologists/ cardiologists treat patients; 'at risk' patients already identified and managed by specialty institutions

Physicians report **urgency to treat** due to high impact on patients' QoL, high risk of injury from falls and caregiver burden

Established nOH Tx paradigm: nOH included in medical treatment guidelines for PD/MSA patients; once diagnosed with nOH, patients prescribed drug

nOH profoundly impacts QoL

Study 0169 primary endpoint:
Change from baseline in OHSA Question 1

OHSA measures core nOH symptom:
Dizziness / lightheadedness due to brain hypoperfusion

Clinically significant endpoint: 1-point OHSA improvement

SYMPTOMS

- ▶ Dizziness or lightheadedness
- ▶ Fatigue
- ▶ Difficulty walking
- ▶ Weakness
- ▶ Impaired cognition
- ▶ Pain (back of head/neck/shoulders)
- ▶ Blurred vision
- ▶ Tremulousness
- ▶ Vertigo

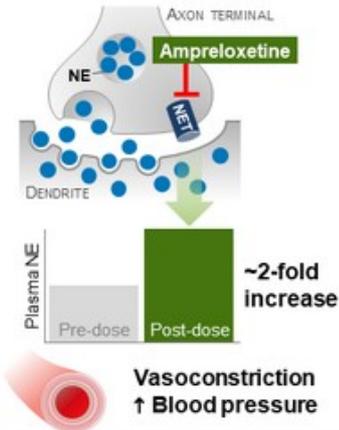
IMPACT

Depression
Social isolation
Poor QoL
Falls (fractures/head trauma)
Morbidity

Ampreloxadine: a once-daily, potent and selective norepinephrine reuptake inhibitor with a differentiated MOA for treating nOH

Ampreloxadine is designed to target and correct the norepinephrine imbalance...

NE Release at Neurovascular Junction



...with potential for market differentiation...

Current nOH treatment options:

- ▶ No durable effect
- ▶ Multiple daily dosing
- ▶ Black box warning for SH

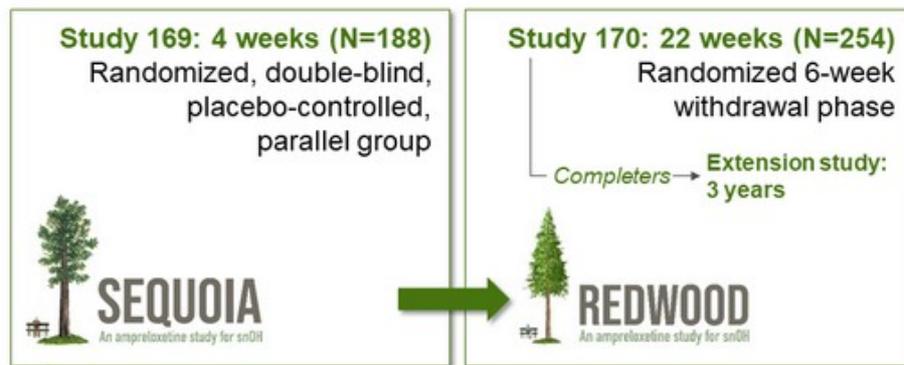
...and demonstrated a clinically meaningful and durable impact¹



Our goal: ampreloxadine to be the first treatment to demonstrate a sustained impact for patients managing the chronic and debilitating symptoms of nOH

Amprexetine: potential to provide meaningful and durable symptom improvement to underserved patients

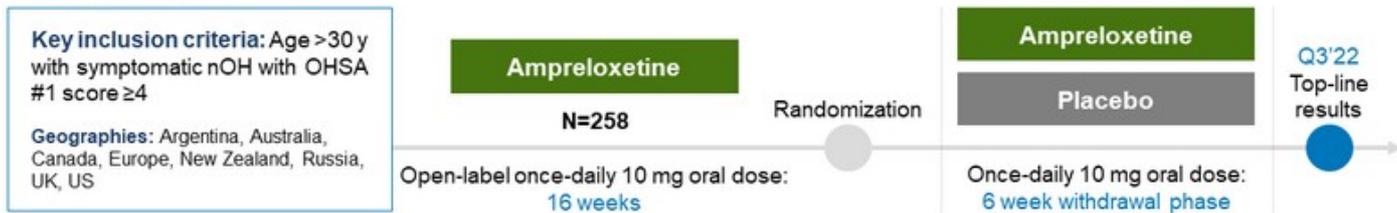
Phase 3 Registrational Program



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

Amprexetine: Phase 3 registrational program

Placebo-controlled, randomized withdrawal study



Objectives

- ▶ **Primary:** 1-pt worsening from baseline in both OHSA #1 score* and PGI-S during withdrawal phase
- ▶ **Secondary:** Changes from baseline at Week 6 post-randomization
 - OHSA #1
 - OHSA composite score
 - OHDAS composite score
 - PGI-S
 - % Time spent standing
 - Average no. of steps taken

Program Status

- ▶ Phase 3 registrational program ongoing
- ▶ All participants who complete Study 0170 are eligible for Extension Study 0171

Amprexetine: Phase 3 program

6-month safety study + 3-year optional extension



Key inclusion criteria: patients who completed Study 0170 and, in investigator's opinion, would benefit from long-term treatment with ampreloxetine

Geographies: Argentina, Australia, Canada, Europe, New Zealand, Russia, UK, US

Amprexetine

Once-daily oral dose: 182 weeks

Q3'22
Top-line
results*

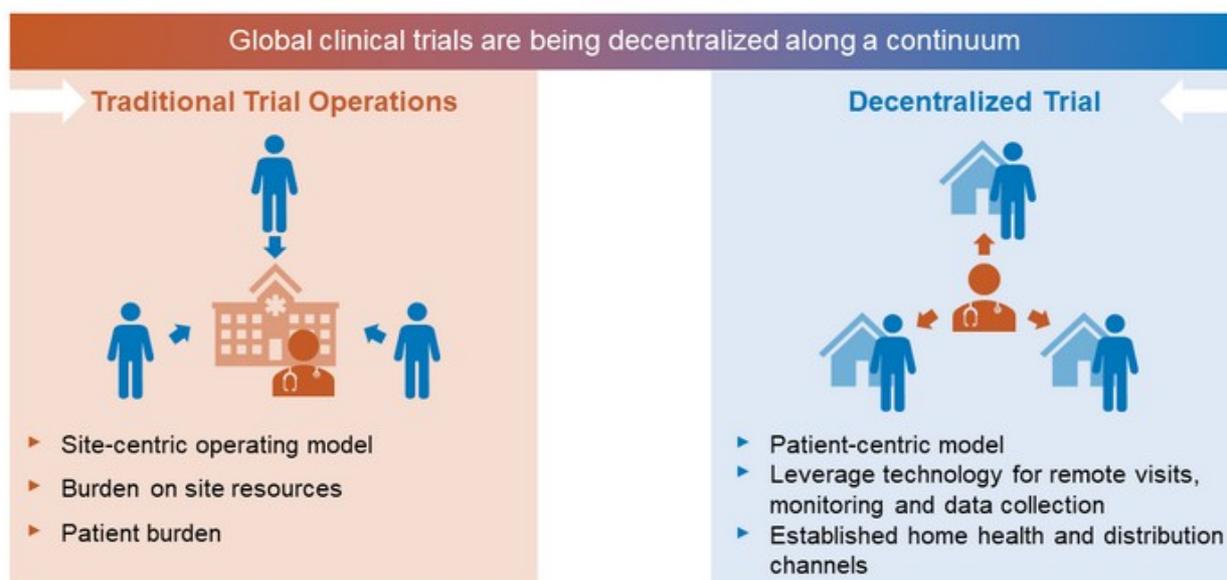
Assessments

- ▶ Through Week 26:
 - Physical and neurological exams
 - Vital signs
 - ECGs
 - Clinical laboratory tests
 - Concomitant medications
 - AEs
 - Treatment compliance
 - Incidence of falls
 - Changes from baseline in C-SSRS

Program Status

- ▶ Includes patients who completed Study 0170

Decentralized trials move activities from the clinic to home



Amprelosetine: has the potential to transform Theravance Biopharma into an independent commercial biopharma

Established disease, targeted market

Established nOH treatment paradigm

nOH is included in medical treatment guidelines for PD and MSA patients; once diagnosed, patients get on drug treatment quickly

Specialist networks in place

A concentrated group of neurologists and cardiologists treat patients with nOH; 'at risk' patients already identified and managed by specialty institutions

An urgency to treat

Physicians report high urgency to treat snOH due to the high impact on patients' QoL, high risk of injury from falls and caregiver burden

A strong value proposition

Manageable opportunity

TBPH's infrastructure capable of commercializing amprelosetine in the US with limited and targeted additions to current resources

Understanding of current access barriers

Meaningful value proposition will drive patient access; Amprelosetine has the potential to improve the durability of treatment effect and thereby reduce costly events associated with nOH

Established patient advocacy

Strong message from PD and MSA advocacy groups that patients need new therapies to better manage nOH



Nezulcitinib (TD-0903) Program

Nebulized lung-selective pan-JAK inhibitor to treat:

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

Nezulcitinib (TD-0903): breaking new ground with inhaled JAKi

Focused execution in acute lung injury (ALI) driven by patient need

COVID-19 MARKET DYNAMICS

>149M COVID-19 patients globally¹;
>32M patients in US²

56% of US population ≥1 vaccine
dose; 40% fully vaccinated³

Virus still surging in communities /
parts of the world¹

5 variants of concern in US⁴

Declining but substantial proportion of
population refusing vaccination⁵

Disproportionate burden on
people of color⁶

Treatments needed for
hospitalized COVID-19 patients
with acute lung injury

TD-0903 Dose finding placebo controlled data⁷

- ▶ Generally well-tolerated
- ▶ Low systemic exposure
- ▶ Positive trend in clinical status, reduced hospital stay
- ▶ No deaths in 3, 10 mg cohorts
- ▶ Improved oxygenation from baseline to Day 7
- ▶ Improved inflammatory biomarkers

Only therapeutic in development
with nebulized
lung-targeted approach

BUILDING A PIPELINE IN A PRODUCT

Potential areas for exploration:

ALI in COVID-19 in hospitalized
patients

Preventing progression of lung
hyperinflammation that leads to
hospitalization

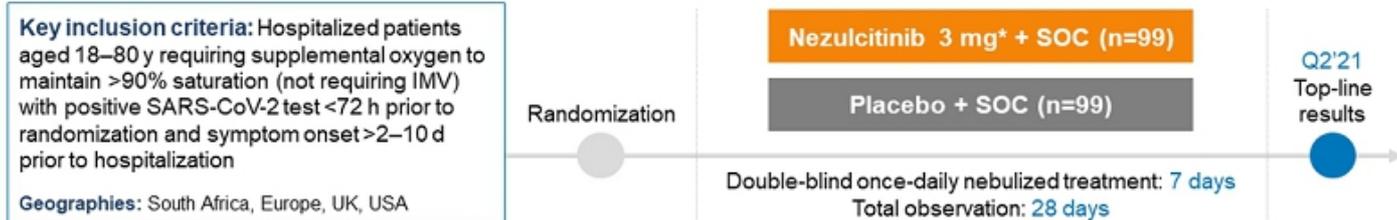
Accelerated recovery of
long-haul COVID-19 patients

Future applications for coronavirus
and influenza inflammation

Prevention of lung transplant rejection

Nezulcitinib: Randomized, double-blind, placebo-controlled Ph 2 study in hospitalized patients with COVID-19 requiring oxygen support

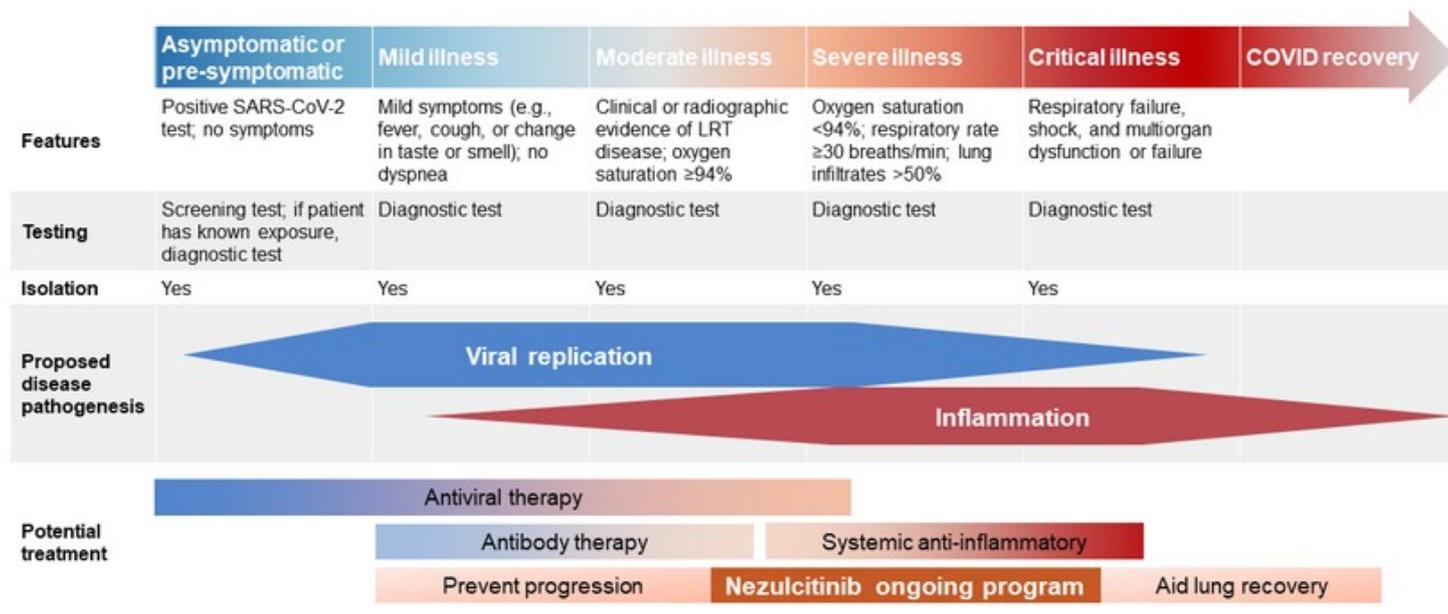
Part 2 Study 0188



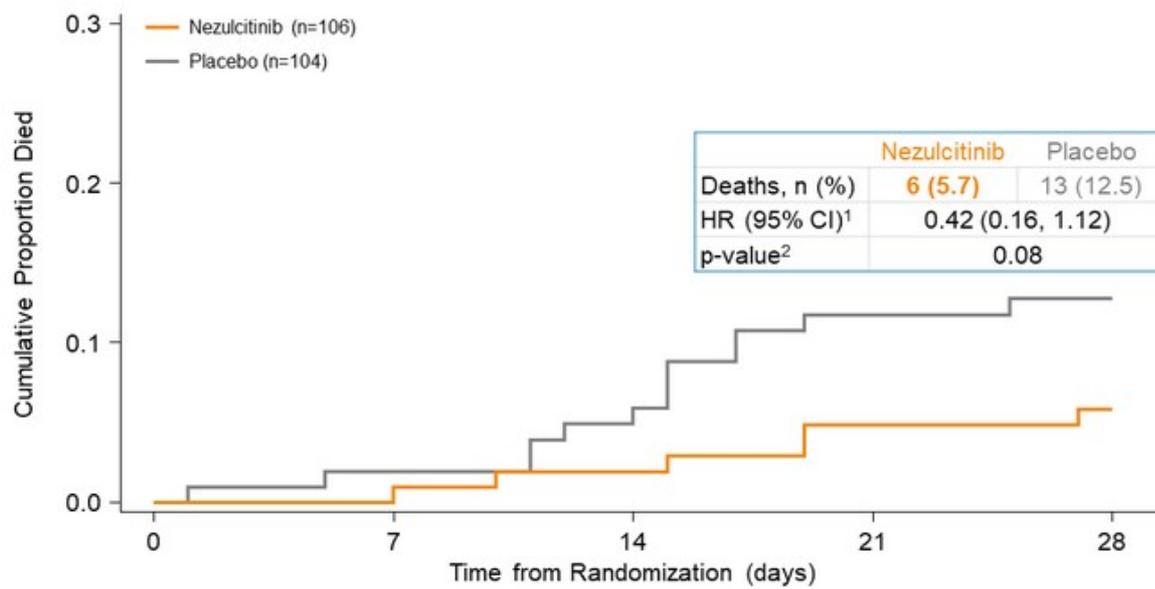
Objectives

- ▶ **Primary:** Number of respiratory-free days from randomization through Day 28
- ▶ **Secondary:** Tolerability, PK
- ▶ **Exploratory:** Clinical status, duration of hospitalization, repeat-dose safety

Potential for nezulcitinib to improve lung immune system balance across disease progression



Nezulcitinib showed a trend of improvement in 28-day all-cause mortality rate and time to mortality (ITT)



Executive summary of safety results

	Nezulcitinib n=103	Placebo n=102
Adverse events	34.0%	41.2%
Serious adverse events	9.7%	15.7%
Liver abnormalities or disease	9.7%	7.8%
Serious infections	1.0%	2.0%
Venous thromboembolism	0	4.9%

- ▶ Nezulcitinib was well tolerated when administered once-daily for up to seven days

Nezulcitinib Phase 2 COVID-19 trial summary

▶ Efficacy outcomes, n=210 (ITT)

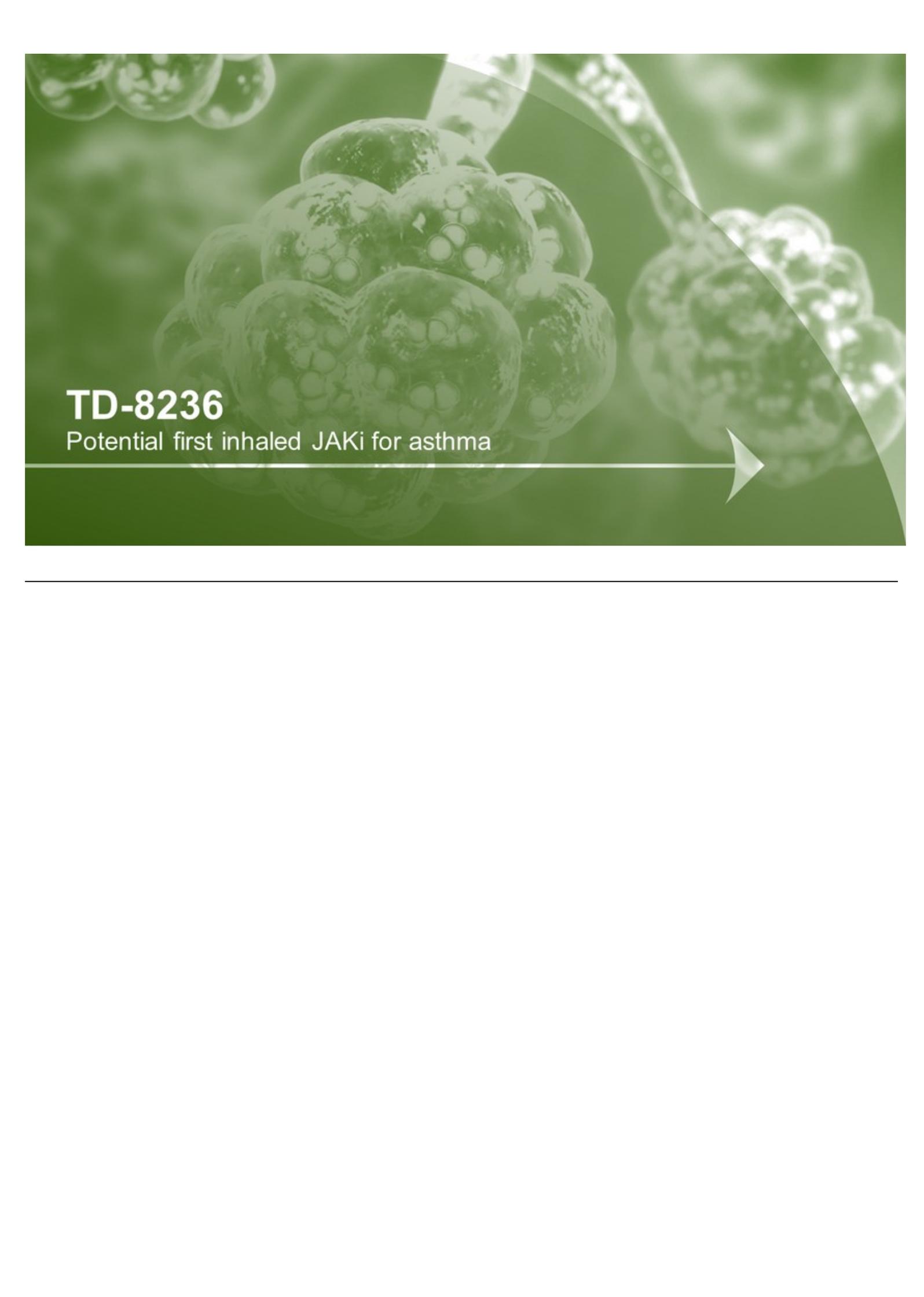
- **Primary:** No statistically significant difference between nezulcitinib and placebo for RFDs from randomization through Day 28
- **Secondary:** No difference in change from baseline at Day 7 in SaO₂/FiO₂ ratio, proportion of patients in each category of the 8-point Clinical Status scale, and proportion of patients alive and respiratory failure-free at Day 28
- A favorable trend in improvement for nezulcitinib when compared to placebo for 28-day all-cause mortality and time to recovery

▶ Post-hoc analyses for baseline CRP, n=201

- CRP <150 mg/L (n=171): Nezulcitinib showed improvement in time to recovery and 28-day all-cause mortality
- CRP ≥150 mg/L (n=30): No differences between groups

▶ Nezulcitinib was well-tolerated when administered once-daily for up to seven days

▶ Plasma exposure was low, consistent with expectations for a lung-selective medicine



TD-8236

Potential first inhaled JAKi for asthma

High medical and economic burden in uncontrolled asthma



339M
cases worldwide¹

25M
US cases
8% of adults
8% of children²



Healthcare utilization³

~\$58B US medical costs⁴

~\$15B US asthma market (October 2020)⁵



ICS + LABA (often fail to control disease)
Approved biologics (affect subsets of patients)

- XOLAIR (omalizumab)
- NUCALA (mepolizumab)
- CINQAIR (reslizumab)
- FASENRA (benralizumab)
- DUPIXENT (dupilumab)

Step-up for severe asthma: LTRAs, tiotropium, OCS, biologics

JAK/STAT cytokines implicated in moderate-to-severe asthma

T2-high	T2-low
IL-4	IL-23/IL-12
IL-13	IL-6
IL-5	IL-27
TSLP	IFN-γ

Bold: biologics in development or approved.



TD-8236

Potential to transform the treatment of respiratory inflammation by treating moderate-to-severe asthma regardless of T2 phenotype, including patients who remain symptomatic despite compliance on high-dose ICS

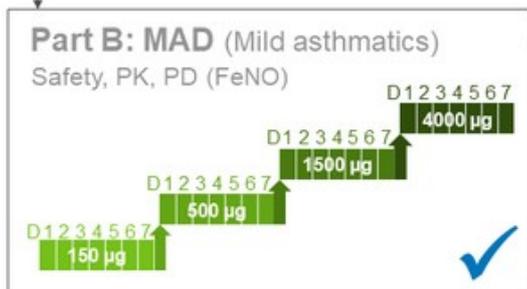


*Asthma that requires high-dosage ICS + LABAs to prevent the disease from being uncontrolled) or asthma that remains uncontrolled despite treatment.

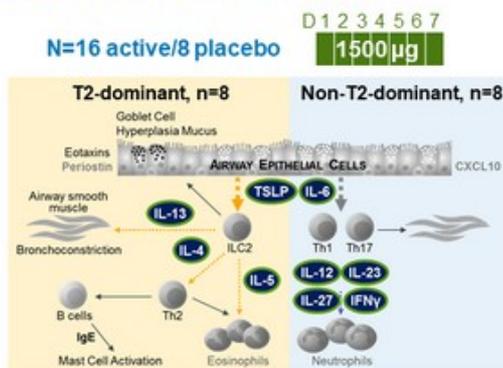
1. World Health Organization; 2. <https://www.aaia.org/asthma-facts>; 3. Sadatsafavi, M., et al. Can Respir J 2010;17:74-80. 4. Nurmagambetov T, et al. Ann Am Thorac Soc 2018;15:348-56; 5. TBPH estimate based on multiple data sources. ICS, inhaled corticosteroids; IFN, interferon; IL, interleukin; JAK, Janus kinase; LABA, long-acting β2 agonists; LTRA, leukotriene receptor antagonist; OCS, oral corticosteroid; STAT, signal transducer and activator of transcription; T2, type 2; TSLP, thymic stromal lymphopoietin.

TD-8236: Phase 1 clinical trial design

Parts A & B completed September 2019; Part C enrollment completed — data reported in Q4 2020



Part C: MoA Biomarkers (Moderate-to-severe asthmatics + ICS)



- ▶ Goal: build confidence in compound, MoA and dose in early-development
- ▶ Endpoints: FeNO; pSTAT1 and pSTAT6 in bronchoalveolar lavage fluid; cytokines; epithelial gene expression

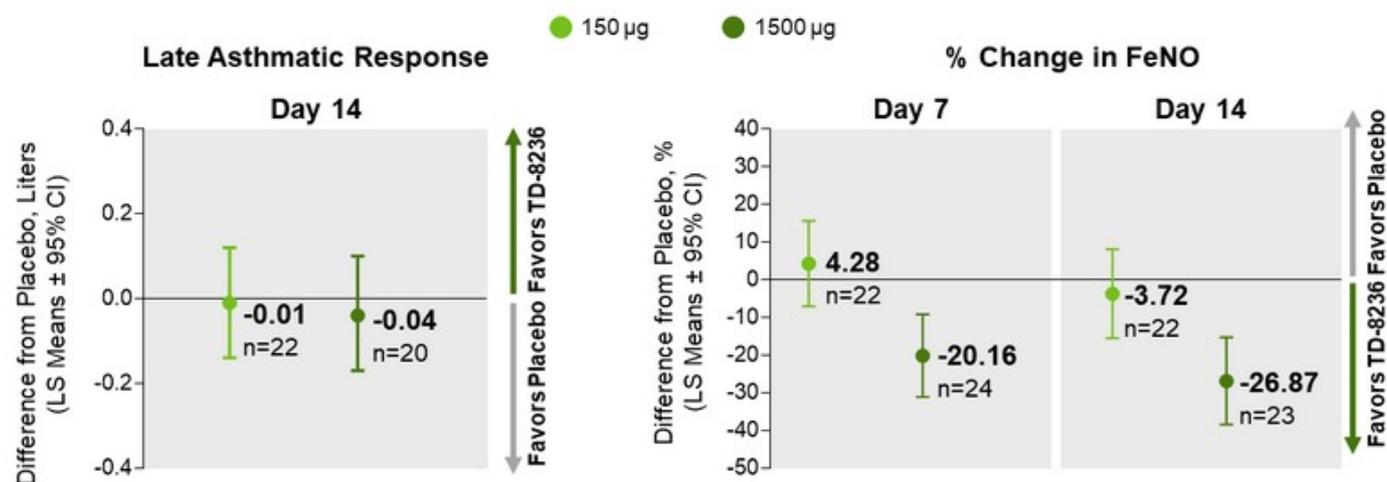
TD-8236: Positive Phase 1 trial in healthy subjects and patients with mild and moderate-to-severe asthma

Phase 1 Profile	Healthy Volunteer Single Dose (Part A)	Mild Asthma Multiple Dose (Part B)	Moderate-to-Severe Asthma [+ ICS] Multiple Dose (Part C)
Generally well tolerated	✓	✓	✓
Minimal systemic exposure	✓	✓	✓
PK and PD profile consistent with once-daily dosing	✓	✓	✓
Biologic activity in lungs of patients with asthma		✓ ↓ FeNO	✓ ↓ FeNO, pSTAT1, pSTAT6

- ▶ Biomarkers of JAK target engagement (pSTAT1 and pSTAT6) significantly reduced in lungs of T2 high and T2 low moderate/severe asthmatics on top of ICS
- ▶ Ongoing analysis of effect of TD-8236 on additional biomarkers including cytokines and gene expression

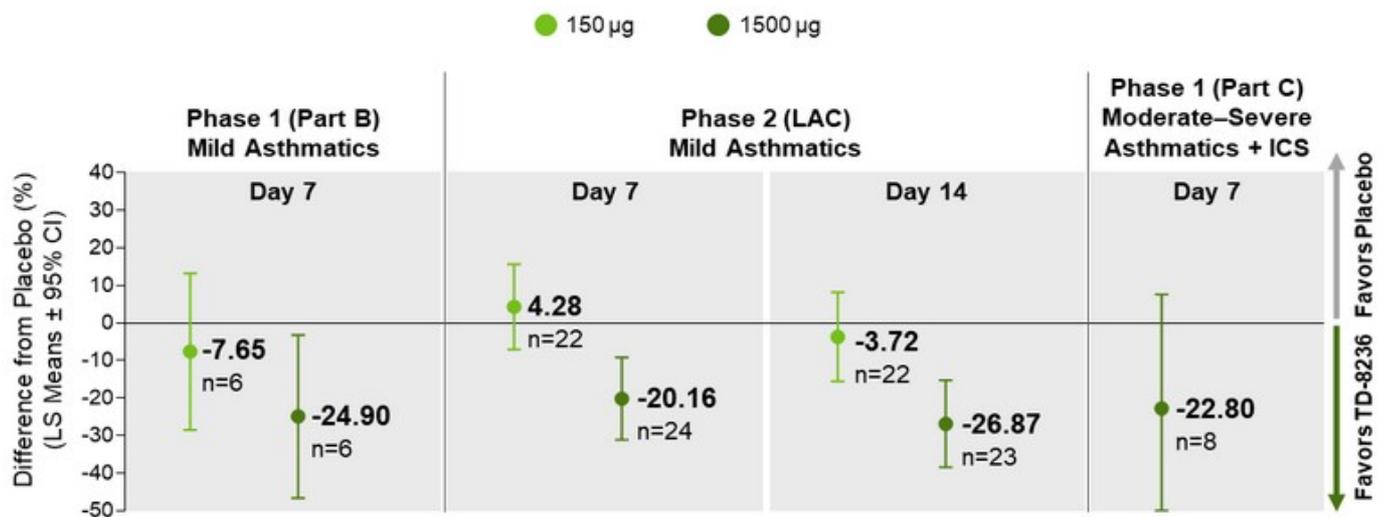
No impact of TD-8236 on the Late Asthmatic Response (LAR)

Significant reductions in inflammation marker (FeNO) and favorable safety and tolerability



TD-8236 was generally well tolerated as a single-daily dose administered for 14 consecutive days

TD-8236 FeNO reductions consistent across Phase 1 and 2



- ▶ FeNO reductions observed in moderate-to-severe asthmatics taking inhaled corticosteroids



TD-5202

Organ-gut selective irreversible JAK3 inhibitor
to treat inflammatory intestinal diseases

Celiac disease has no current treatments and serious health consequences



1%
Global prevalence¹

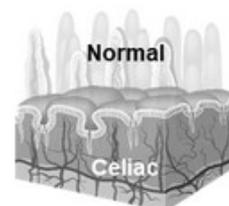
3.3M
US patients^{2,3}

4–4.5x
increase in US
over past 50 y⁴

>2x
higher healthcare
costs than controls⁵

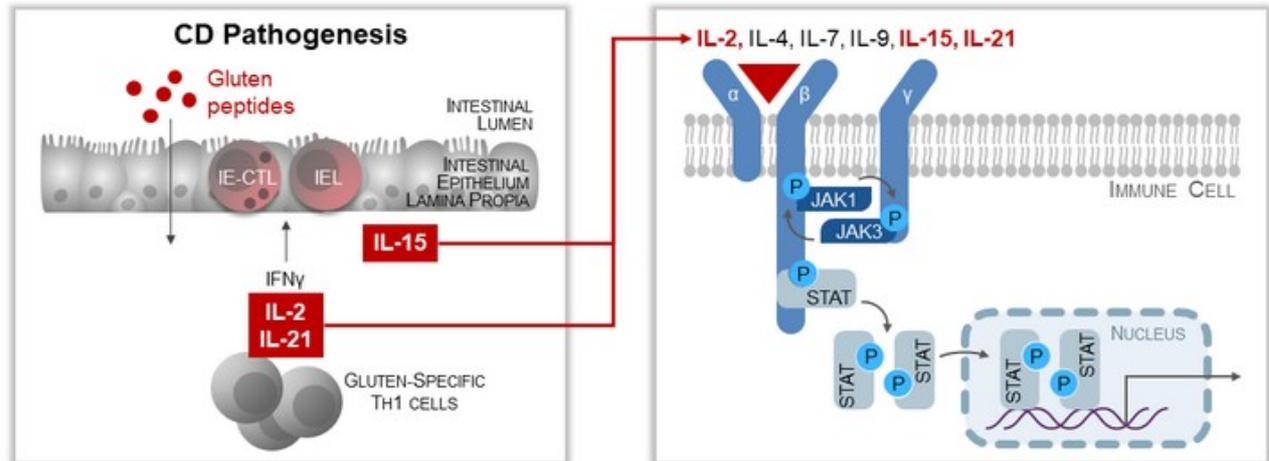


No approved treatment
Only available intervention is strict life-long gluten-free diet
30% of diagnosed patients are poorly controlled despite
best dietary efforts⁶



TD-5202 Organ-gut selective irreversible JAK3 inhibitor:
potential to deliver significant value for both patients and payers

JAK3-dependent cytokines play central role in pathogenesis of celiac disease



- ▶ Proof-of-relevance from recent positive Phase 2 data with systemic JAK3 inhibitor in alopecia areata, another T-cell mediated disease
- ▶ Localized JAK3 inhibition has the potential to avoid systemic immunosuppression (genetic JAK3 deficiency leads to severe immunodeficiency)

TD-5202 First-in-human overall results summary

TD-5202: generally well-tolerated (single dose ≤ 2000 mg, multiple doses ≤ 1000 mg BID) for 10 consecutive days in healthy subjects



- ▶ No serious or severe AEs were reported
- ▶ All treatment-emergent AEs in TD-5202-treated subjects were mild in severity



- ▶ No clinically significant changes from baseline in vital signs and ECG assessments
- ▶ No clinically significant changes in chemistry or hematology parameters
 - No changes in NK cell count



- ▶ Systemic exposures were dose proportional from 100 to 1000 mg BID
- ▶ Low steady-state systemic exposures: mean $C_{max,ss}$ ~11-fold below the protein-adjusted JAK IC_{50} at the highest tested dose (1000 mg BID), consistent with a gut-selective approach



Inhaled ALK5i

Potential best-in-disease therapy for the treatment of idiopathic pulmonary fibrosis (IPF)

Idiopathic pulmonary fibrosis (IPF) remains a fatal chronic lung disease with limited treatment options



140,000

US prevalence;
currently orphan disease^{1,2}

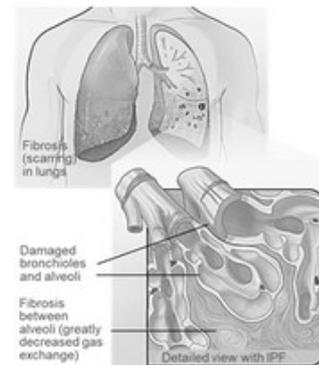


Profound dyspnea, unrelenting cough,
impairment of activities of daily living



Mortality with IPF remains high

Lungs with IPF³



Limited treatment options

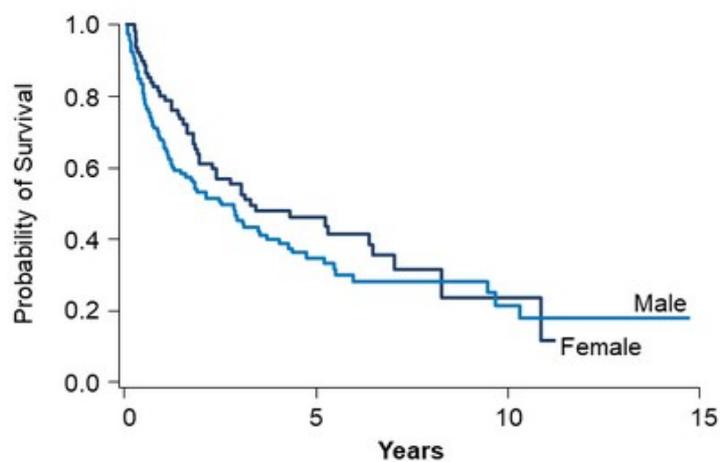
2 currently approved therapies, with modest efficacy and poor tolerability



Inhaled ALK5i

Potential first-in-class inhaled ALK5 inhibitor anti-fibrotic agent for IPF
Despite treatment with the current SoC, IPF patients continue to experience disease progression and exacerbation

Significant opportunity remains for effective IPF treatments

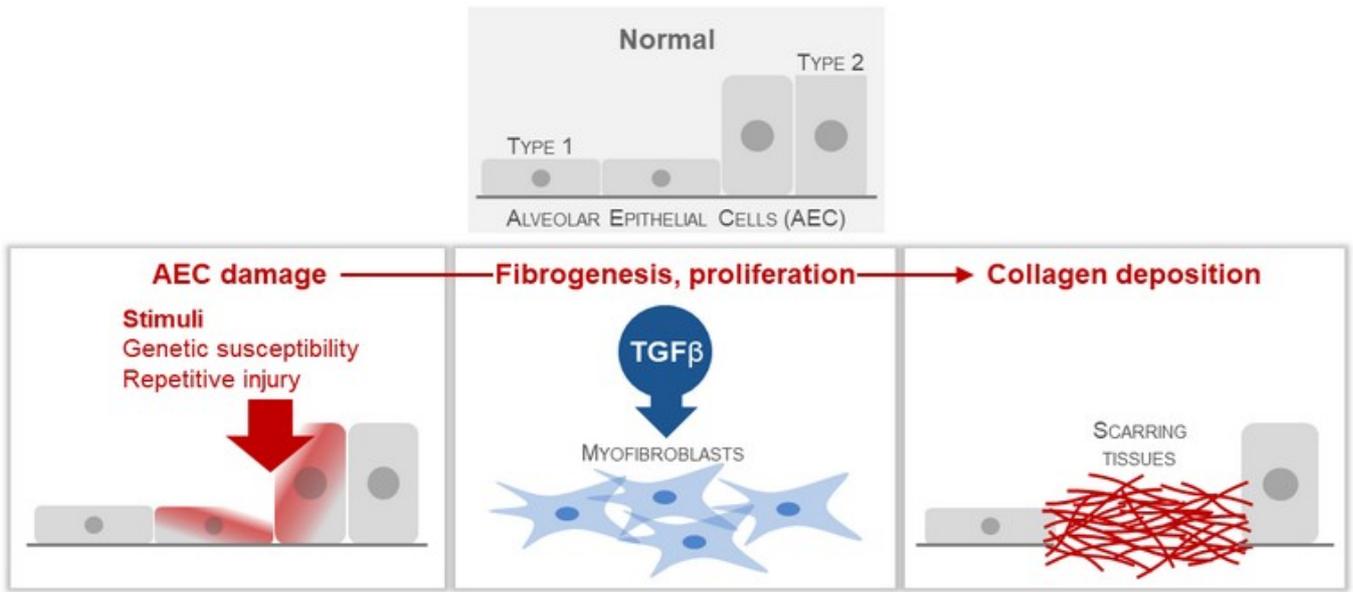


- ▶ Mortality with IPF remains high
 - <50% alive 3 years after diagnosis¹

Goal  To arrest disease progression with improved tolerability

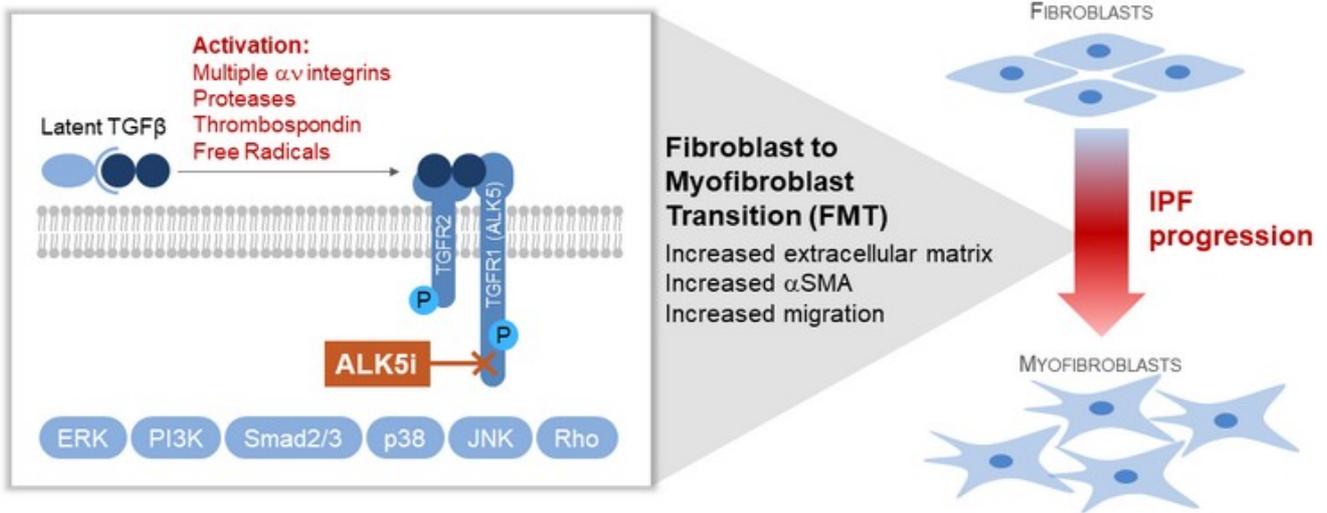
Targeting the TGFβ pathway

A core signaling pathway that drives fibrosis

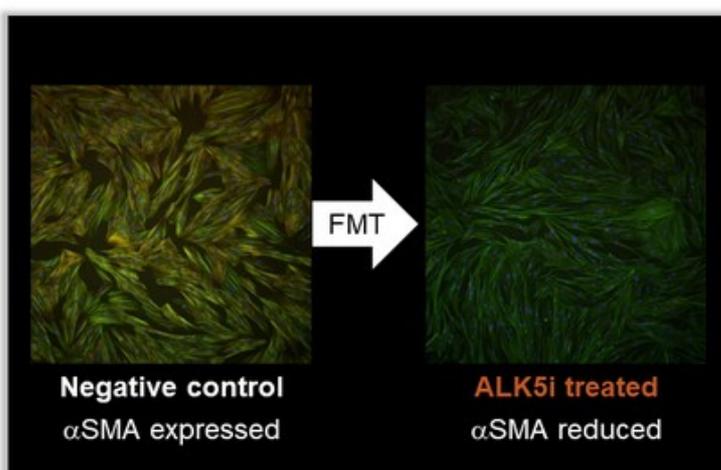
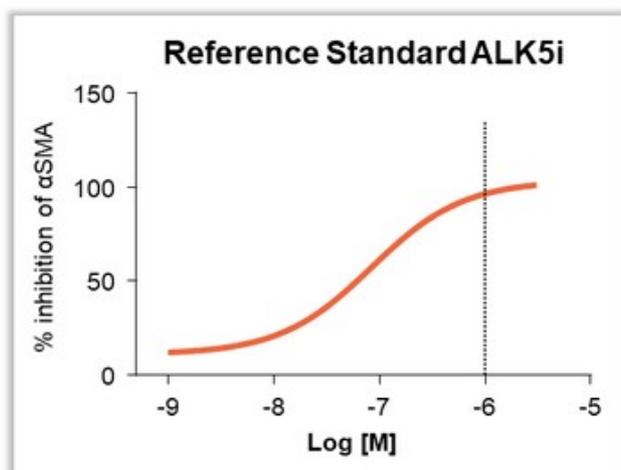


Selectively targeting the TGF β pathway through ALK5 inhibition

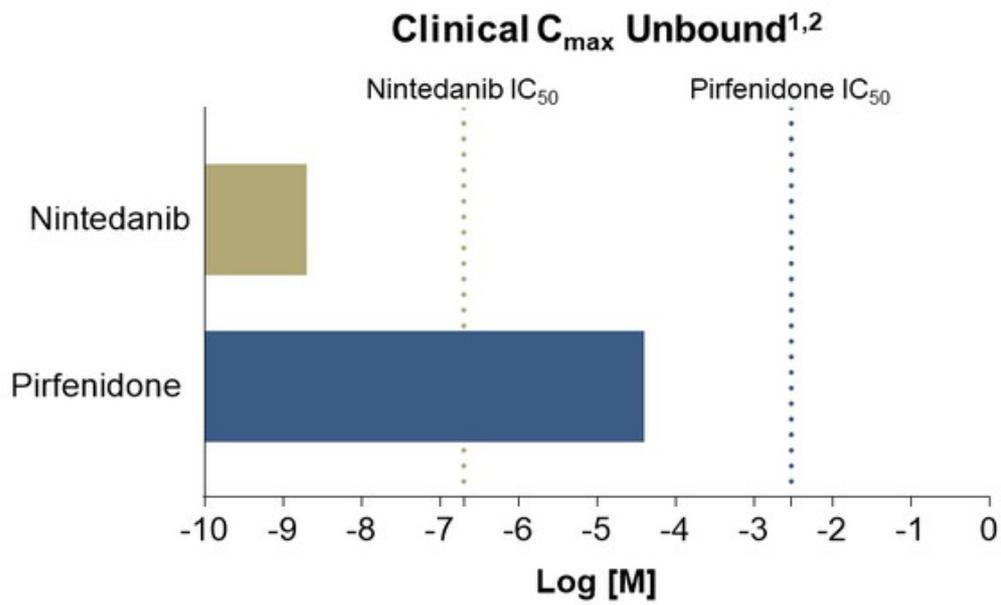
Inhibiting a core signaling pathway that drives fibrosis regardless of activation mechanism



ALK5 inhibition directly interrupts FMT in IPF

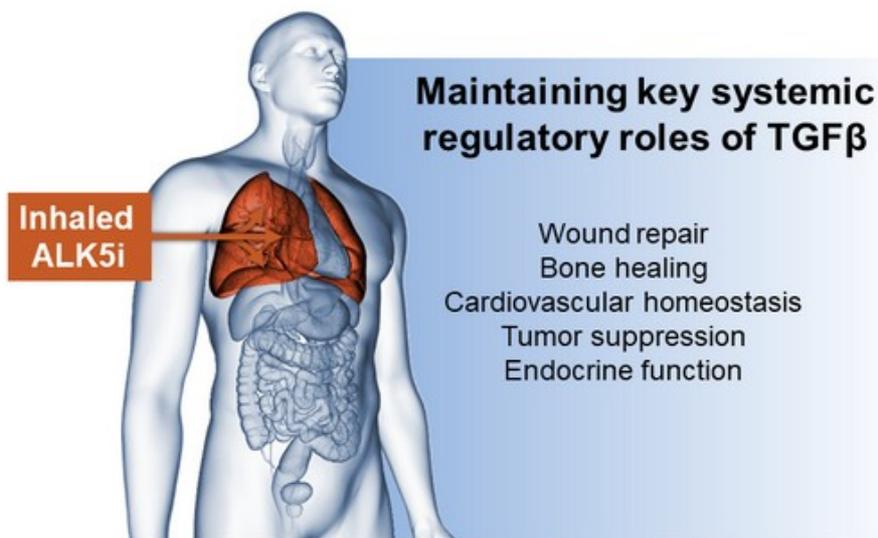


Current treatment options have no effect on FMT at clinically relevant concentrations



Lung selectivity avoids unwanted systemic side effects

Minimizing systemic inhibition of a cytokine essential for homeostasis





Ocular JAKi

Potential best-in-disease, pan-JAK inhibitor with long-acting ocular anti-inflammatory activity

Diabetic macular edema causes blindness in diabetics



2.7 million
US prevalence¹

#1 cause of
blindness in
diabetes²

140% higher direct and indirect
healthcare costs
in patients with DME vs
diabetics without ocular disease³



- 1st — **Anti-VEGF treatments** Most patients have suboptimal response
- 2nd — **Intraocular steroids** Side effects limit utility

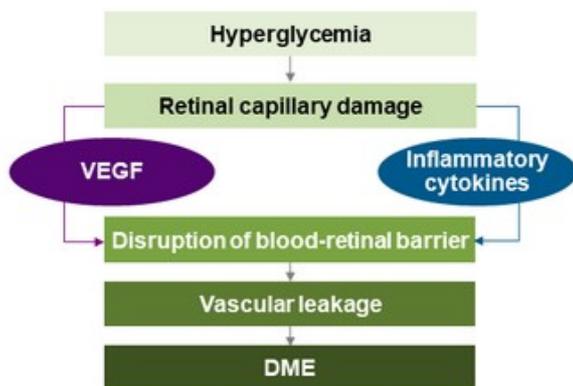
Nonpharmacological treatments (e.g. laser coagulation) limited efficacy and significant adverse events



**Ocular
JAKi**

Potential to offer an alternative treatment for DME patients who are not optimally responding to treatment with VEGFi

Inflammation, not just VEGF, is a key driver of DME



Current Pharmacological Treatments

Intraocular anti-VEGF agents

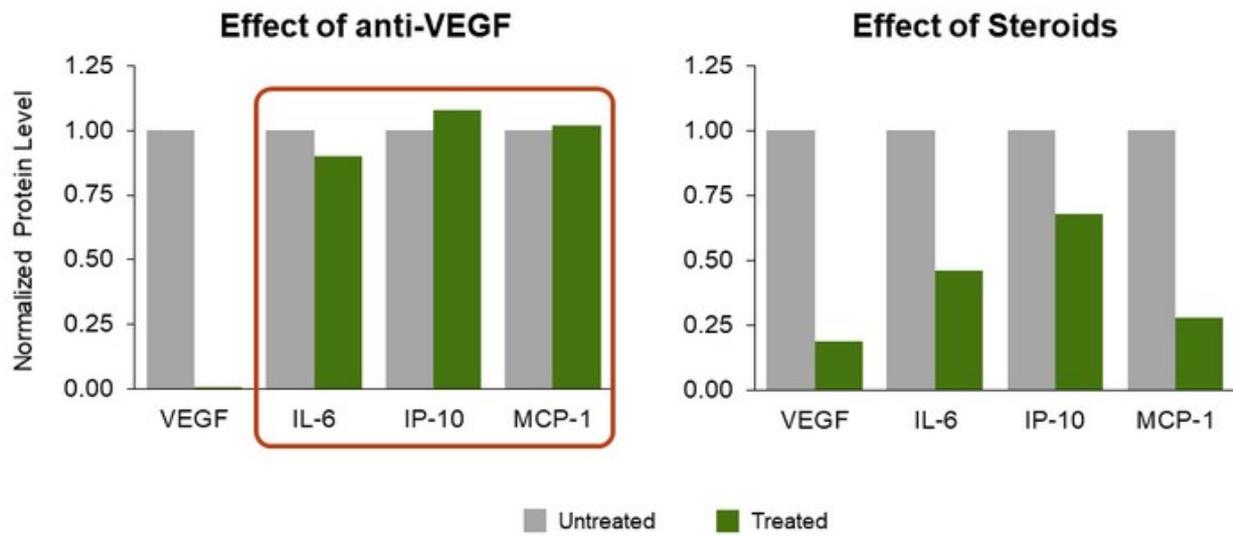
- ▶ One third do not respond to anti-VEGF while another third have a suboptimal response¹
- ▶ Require frequent intravitreal injections

Intraocular steroids

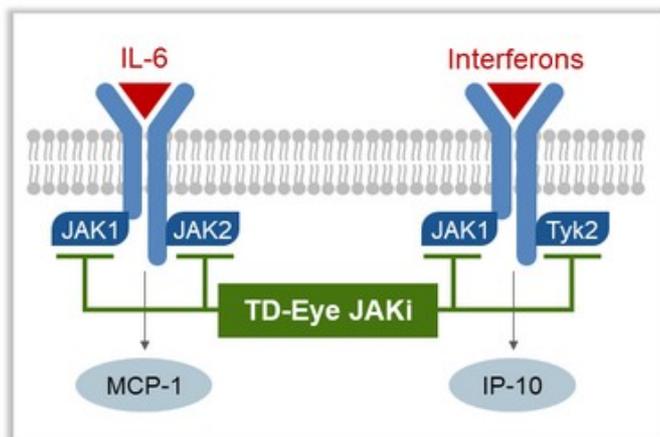
- ▶ High frequency of formation of cataracts and glaucoma

Need for broad, sustained release, anti-inflammatory with a safer side-effect profile

Unmet need for an anti-inflammatory drug: opportunity for eye-selective JAK inhibition



Ocular pan-JAK inhibition has the potential to address key disease pathways in DME



TD-EyeJAKi inhibits key DME inflammatory pathways:

- ▶ IL-6 and interferon signaling pathways in human primary cells
- ▶ IL-6 induced pSTAT3 and interferon-induced IP-10 in the back of the eye *in vivo*

A pan-JAK inhibitor designed for eye selectivity with projected dosing interval of at least three months

