Developing innovative therapies for the treatment of respiratory diseases

June 2022

Verona Pharma

Breath of Innovation™

Nasdaq: VRNA | www.veronapharma.com

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Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These risks, uncertainties and other factors include those under “Risk Factors” in the Company’s annual report on Form 10-K for the year ended December 31, 2021, and current reports on Form 8-K and our other filings with the Securities and Exchange Commission (the “SEC”). Forward-looking statements represent the Company’s beliefs and assumptions only as of the date of this presentation. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, the Company assumes no obligation to publicly update any forward-looking statements for any reason after the date of this presentation, or to conform any of the forward-looking statements to actual results or to changes in its expectations.

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Ensifentrine is a Phase 3, first-in-class candidate for the maintenance treatment of COPD

Inhaled PDE3 and PDE4 inhibitor

Large market with significant unmet need

- *~$10.5B US sales[1]*
- *>1M patients remain symptomatic despite dual/triple treatment[2-4]*

Ensifentrine novel profile

- *Novel dual MOA*
- *Efficacy demonstrated in two large Phase 2b trials*
- *Safety profile consistent with placebo*

Targeted commercial opportunity

- *Pulmonologists key to adoption[5]*
- *Primary reimbursement channel is Medicare Part B[6]*

[1]IQVIA MIDAS, IQVIA MIDAS Medical; [2]Ferguson et al. Lancet Respir Med 2018; [3]Mahler D, et al., Eur Respir J, 2014; [4]Vestbo J, et al., The Lancet, 2017; [5]Verona I US MCOPD Integrated Conjoint Survey; [6]Verona_IQVIA_LAAD Quarterly Reporting Report 2_June 2021- Data for MAT Dec 2020

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Verona Pharma's respiratory product pipeline

Ensifentrine is a potential "Pipeline in a product"

Program	Delivery	Pre-clinical	Phase 1	Phase 2	Phase 3	Milestone Targets / Status
Maintenance treatment of COPD	Nebulizer					ENHANCE-2 top-line in Q3 2022 ENHANCE-1 top-line around end of 2022
Maintenance treatment of COPD	DPI/MDI					Positive Phase 2 data DPI & pMDI formulations (FEV_1 improvement & Safety similar to placebo)
Maintenance treatment of COPD (w/ LAMA or LABA)	Inhaled					Future life cycle management
Asthma	Nebulizer					Positive Phase 2 data[1]
Asthma	DPI/MDI					Phase 2 ready
Cystic Fibrosis	Nebulizer					Proof of concept[2]
Cystic Fibrosis	DPI/MDI					Phase 2 ready

[1]Bjermer L, et al., Pulm Pharmacol Ther 2019; [2]Data on file

Well capitalized with cash runway through at least 2023

Clinical program, NDA submission, and pre-commercial efforts are fully supported

Financial highlights

Cash and Equivalents* (as of March 31, 2022)	**$132.8M**
Operating expenses** (quarter ended March 31, 2022)	**$25.1M**
Market cap (Nasdaq: VRNA) (as of May 3, 2022)	**$246.3M**
Shares outstanding (as of May 3, 2022)	**60.7M ADSs**

*Runway expectations based on current cash and equivalents, expected U.K. tax credit receipts and future draws on SVB debt facility
**Net of non-cash share based comp

COPD: a global problem

>384 million patients suffering worldwide and the 3rd leading cause of death[1]

Prevalence of COPD in US:
~25M patients[2]
~6M treated chronically

~$10.5B in maintenance COPD sales[5]

Prevalence of COPD in China:
~100M patients[3]

~$1B in sales (expected to double by 2030)[5]

Prevalence of COPD in EU:
~70M patients[4]

~$2.7B in sales[5]

[1]*WHO Fact sheet, https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-(copd); [2]https://www.cdc.gov/copd/index.html; [3]Wang et. al, The Lancet, April 2018; [4]NCD Alliance estimates, https://ncdalliance.org/news-events/news/66-million-people-may-live-with-copd-in-europe-yet-it-remains-unknown; [5]IQVIA MIDAS, IQVIA MIDAS Medical*

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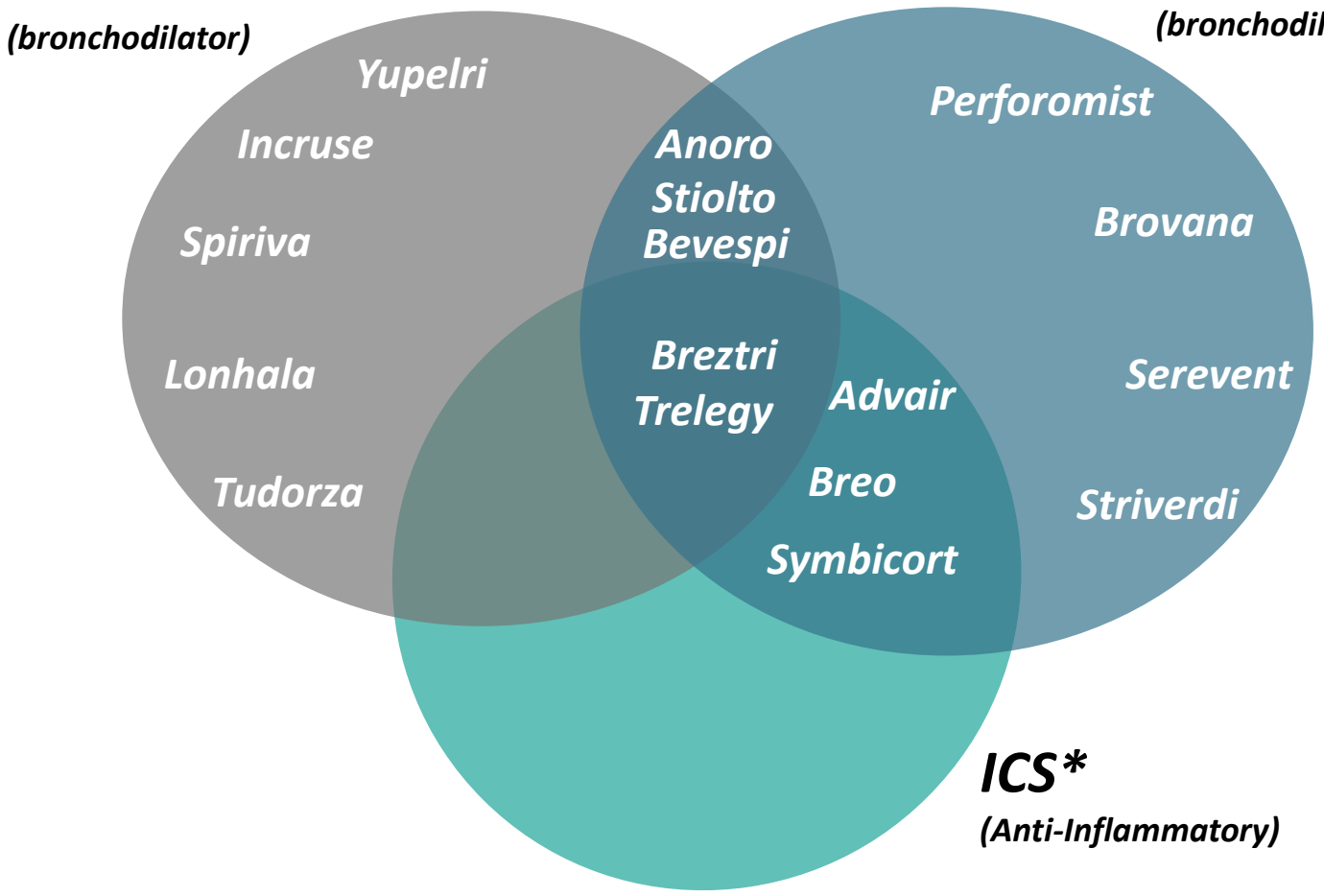
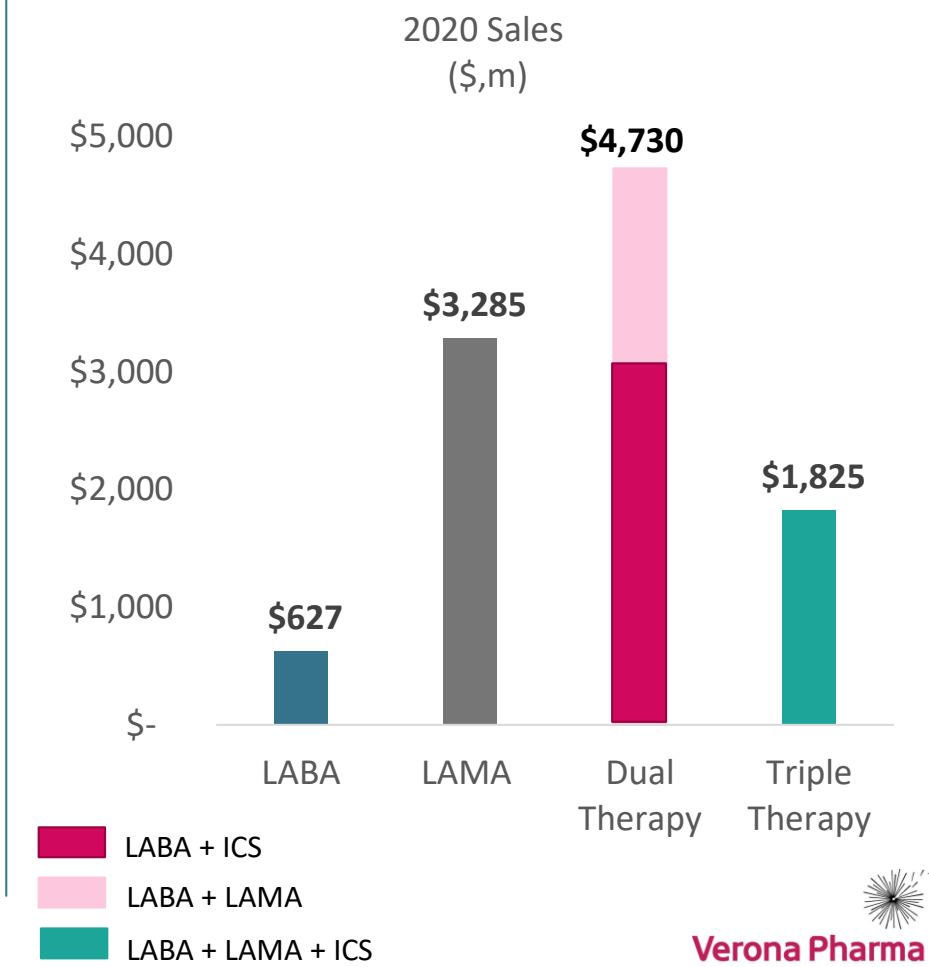
Current COPD treatments limited to 3 MoAs

LAMAs & dual therapies generate the majority of product sales

Maintenance Treatment Choices[1]



2020 Sales by MOA[2]



LAMA: Long acting muscarinic agent, LABA: Long acting beta-adrenoceptor agonist

*GOLD Guidelines recommend ICS products for patients who have a frequent history of exacerbations

[1]*https://www.copdfoundation.org/Learn-More/I-am-a-Person-with-COPD/Treatments-Medications.aspx;* [2] *IQVIA MIDAS, IQVIA MIDAS Medical*

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COPD places a tremendous burden on US medical system & patients

US Medical System

~1.9M Emergency room visits[1]

~740K Hospitalizations[1]

~$50B in costs (Direct/Indirect)[2]

Patients

70% COPD patients have limited activity[3]

53% COPD patients feel socially limited[3]

51% COPD patients limited at work[3]

[1] https://hcupnet.ahrq.gov/ accessed September 2020; [2] CDC International Journal Of Chronic Obstructive Pulmonary Disease, 2020 Iheanancho et. Al.;
[3] https://www.healthline.com/health/copd/facts-statistics-infographic, accessed September 2020

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Execution driven leadership team

Decades of respiratory and commercialization experience

David Zaccardelli, Pharm D *President & CEO*	Dova Pharmaceuticals	cempra	United Therapeutics Corporation
Mark Hahn, CPA *CFO*	Dova Pharmaceuticals	cempra	EY
Kathy Rickard, MD *CMO*	gsk	CIRCASSIA	
Chris Martin *Senior VP, Commercial*	SK life science	cempra	Salix Pharmaceuticals
Peter Spargo, PhD *Senior VP, CMC*	Pfizer	spinifex	novexel
Claire Poll, LLB *General Counsel*	KING&WOOD MALLESONS	inmarsat	
Caroline Diaz *Senior VP, Regulatory Affairs*	REVIRAL	Dova Pharmaceuticals	ucb
Tara Rheault, PhD *Senior VP of R&D*	gsk	IMS Health & Quintiles are now IQVIA	

Verona's team has expertise in developing / commercializing many COPD drugs including:

- ADVAIR
- ANORO ELLIPTA
- BREO®
- FloVent
- flutiform® fluticasone propionate/formoterol
- INCRUSE ELLIPTA
- SereVent
- Symbicort®
- Tudorza® Pressair®
- Ventolin

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Ensifentrine: Novel profile providing both bronchodilator and anti-inflammatory effects

Ensifentrine impacts 3 key mechanisms in respiratory disease

Airway Smooth Muscle[1-4]

PDE3, PDE4

↑ **cAMP**

Bronchial relaxation

bronchodilation

Inflammatory Cells[5,6]

Neutrophils
PDE4

Epithelial cells
PDE3, PDE4

Macrophages
PDE3, PDE4

Eosinophils
PDE4

Lymphocytes
PDE3, PDE4

Fibroblasts
PDE4

↑ **cAMP**

↓ **Cell proliferation survival & activity**

anti-inflammatory effects

Epithelial Cells[7,8]

PDE3, PDE4

↑ **cAMP**

↑ **CFTR activation**

↑ **Ciliary function**

mucociliary clearance

[1]Calzetta L, et al., J Pharmacol Exp Ther 2013; [2]Calzetta L, et al., Pulm Pharmacol Ther 2015; [3]Matera MG, et al., Am J Respir Crit Care Med 2013; [4]Venkatasamy R, et al., Br J Pharmacol 2016; [5]Boswell-Smith V, et al., J Pharmacol Exp Ther 2006; [6]Franciosi LG, et al., Lancet Respir Med 2013; [7]Schmidt D, et al., Br J Pharmacol 2000; [8]Turner MJ, et al., Am J Physiol Lung Cell Mol Physiol 2016

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Ensifentrine: Two large Phase 2b trials to support development

Study 203 & 205 provide robust efficacy and safety for development

Study 203
Ensifentrine monotherapy
N=403

- Ensifentrine 0.75mg, 1.5mg, 3mg, 6mg BID N=324
- Placebo BID N=79

Study 205
Ensifentrine plus Tiotropium (LAMA)
N=413

- Ensifentrine 0.375mg, 0.75mg, 1.5mg, 3mg BID N=329
- Placebo BID N=84

4 Weeks

Key Endpoints

- Peak FEV_1
- FEV_1 (AUC over 12 hours) at week 12
- Symptoms & QOL (E-RS: COPD, SGRQ)
- Other FEV_1 (trough, peak)

Patient population:

- Study 203:
  - Monotherapy (EU only sites)
  - ~40% of patients on ICS
- Study 205:
  - LAMA (tiotropium) background (US only sites)
  - Symptomatic: mMRC ≥ 2
- 30-80% predicted FEV_1

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Ensifentrine: Efficacy demonstrated in two large Phase 2b trials

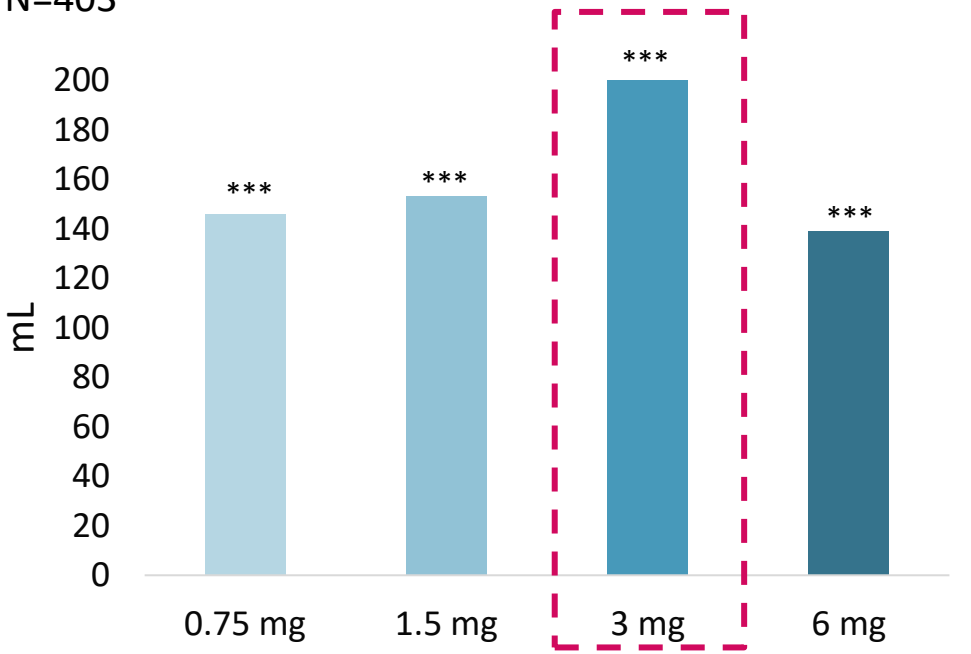
Improvements in lung function seen at Phase 3 trial dose

Study 203: *Ensifentrine Monotherapy*[1]

Lung function

Peak Change FEV_1 (mL) at day 28

N=403



*Peak Change from Day 1 in Baseline in FEV_1 (mL) on Day 28, Week 4, Primary endpoint met; placebo corrected

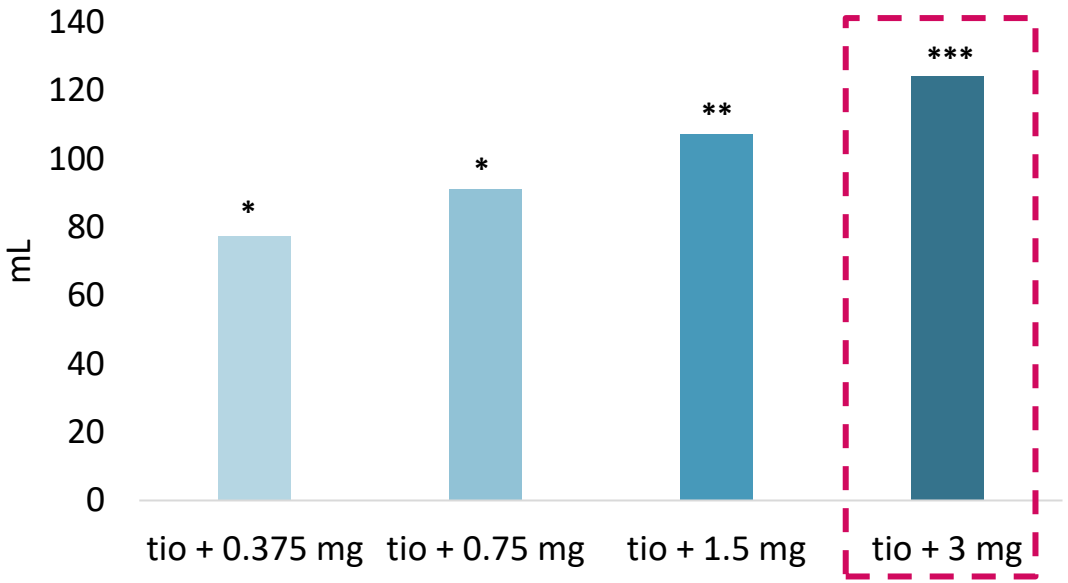
***p ≤ 0.001

Study 205: *Ensifentrine + Tiotropium*[2]

Lung function

Peak Change FEV_1 (mL) at week 4

N=413



Primary endpoint met; placebo corrected

***p ≤ 0.001 **p≤0.01 *p≤0.05

[1]*RPL554-CO-203, Singh D, et al., Respiratory Research 2020;*
[2]*RPL554-CO-205 Full Phase 2b Analysis Set, data on file; tiotropium (Spiriva®)*

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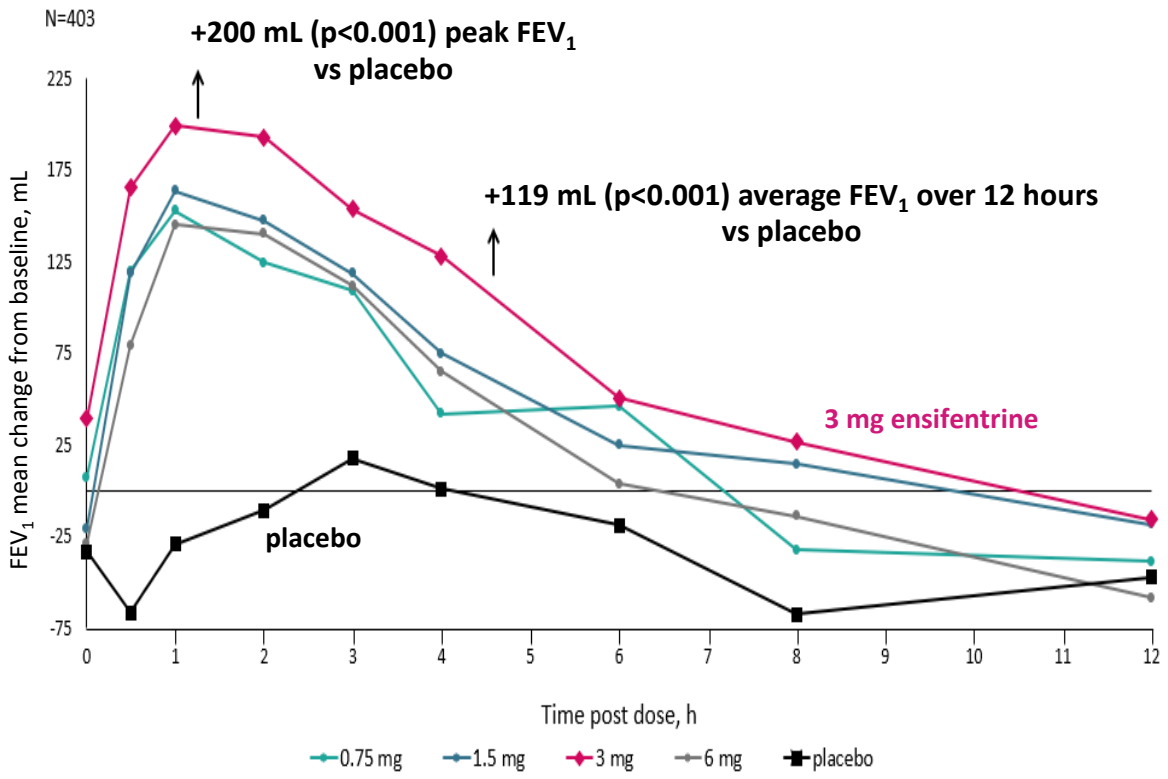
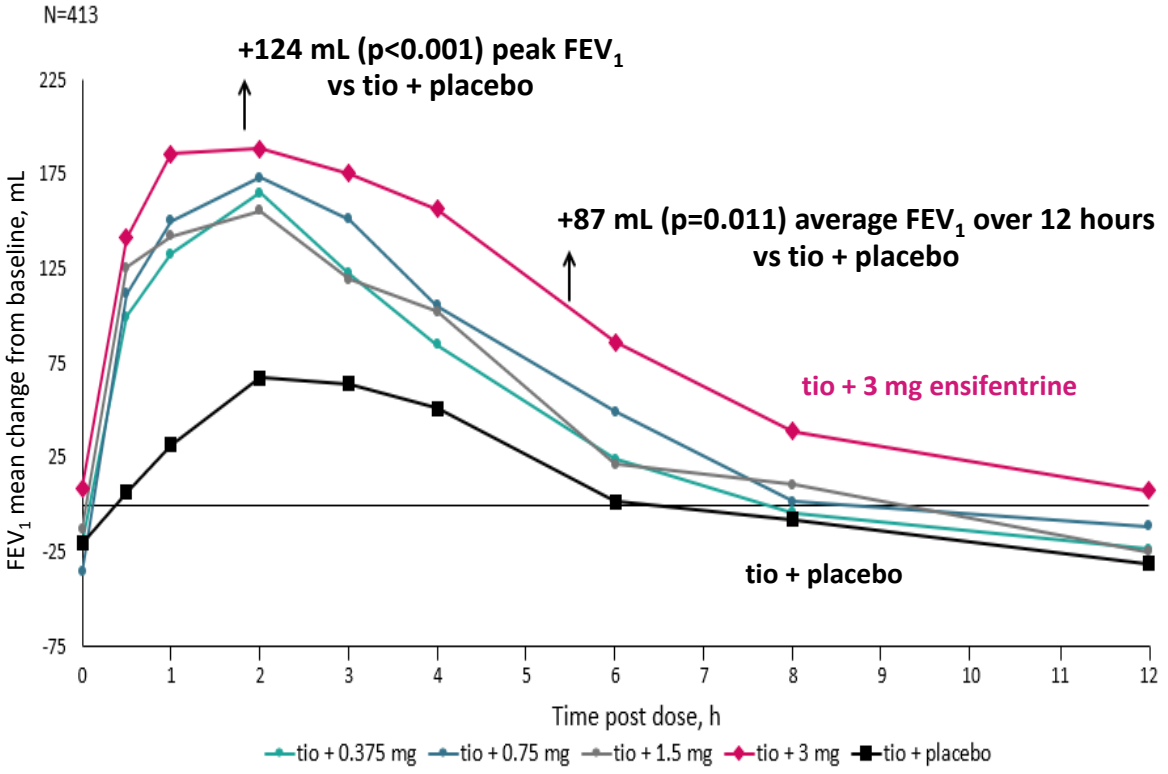
Ensifentrine: Spirometry across Phase 2b program

12-Hour spirometry profile at week 4 supports twice daily dosing

Study 203: *Ensifentrine Monotherapy*[1]



Study 205: *Ensifentrine + Tiotropium*[2]



[1]*RPL554-CO-203, Singh D, et al., Respiratory Research 2020;*
[2]*RPL554-CO-205 Full Phase 2b Analysis Set, data on file; tiotropium (Spiriva®)*

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Ensifentrine: Symptom improvement in two large Phase 2b trials

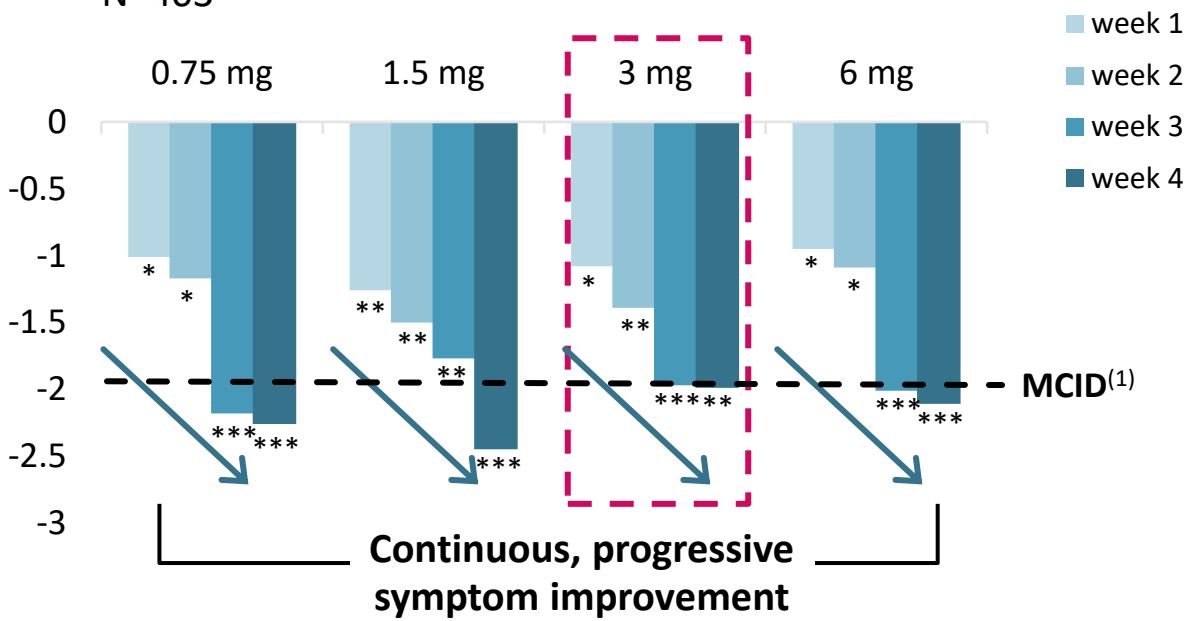
Improvements seen at Phase 3 trial dose

Study 203: *Ensifentrine Monotherapy*[1]

Symptom relief

Total Score E-RS: COPD by Week

N=403



***p ≤ 0.001 **p ≤ 0.01 *p ≤ 0.05

Placebo corrected

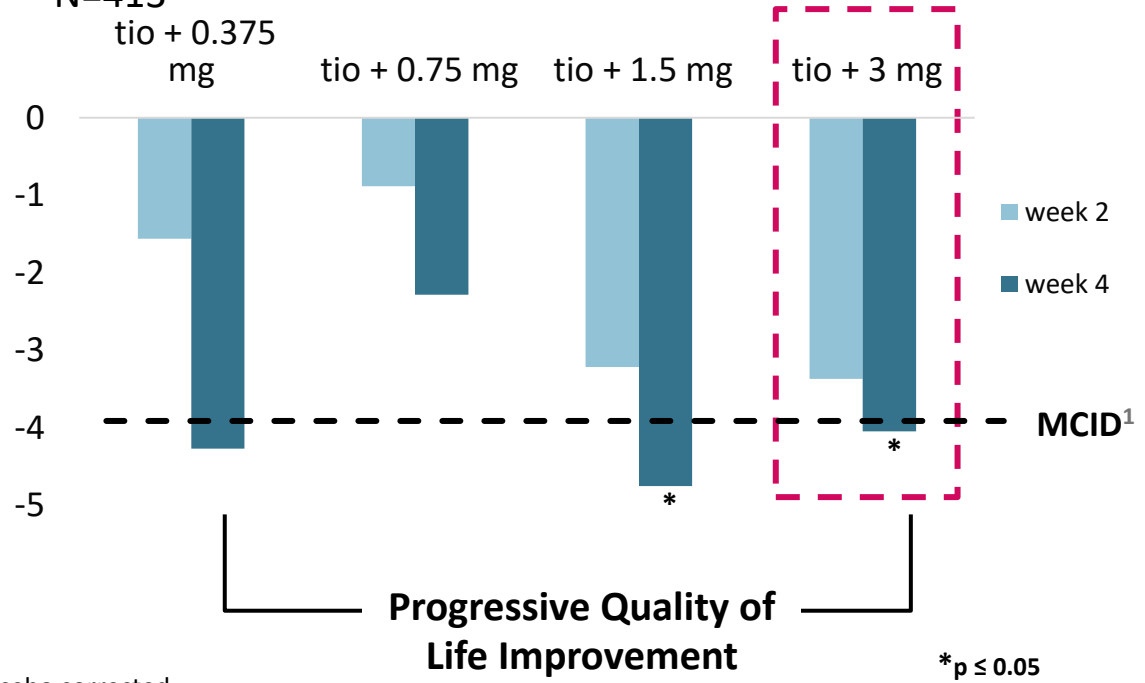
(1) Minimal clinically important difference

Study 205: *Ensifentrine + Tiotropium*[2]

Symptom & QOL relief

Total Score SGRQ-C: COPD by Week

N=413



*p ≤ 0.05

Placebo corrected

[1]Minimal clinically important difference (-4 units)

[1]*RPL554-CO-203, Singh D, et al., Respiratory Research 2020;*

[2]*RPL554-CO-205 Full Phase 2b Analysis Set, data on file; tiotropium (Spiriva®)*

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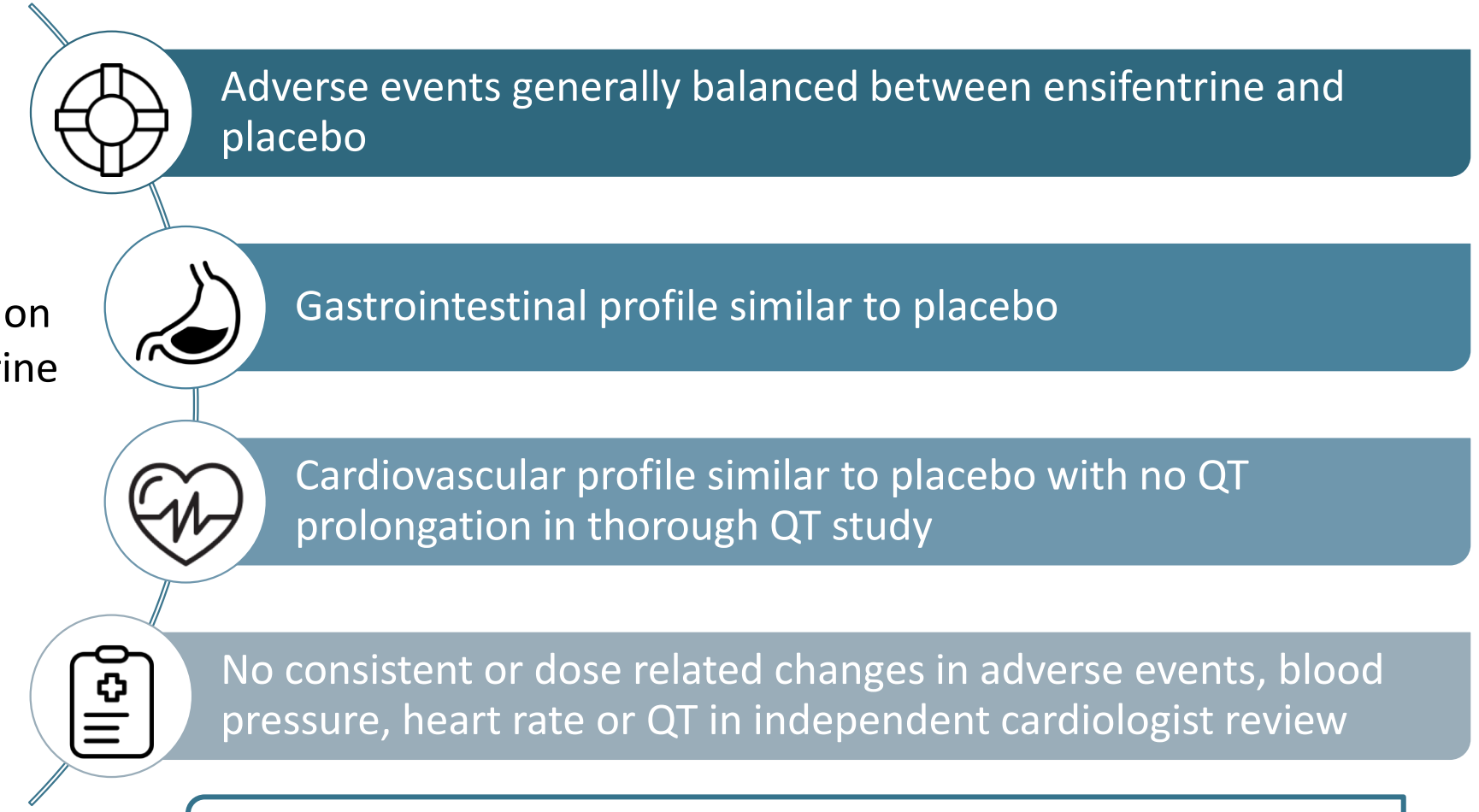
Safety profile similar to placebo

Ensifentrine well tolerated at all doses in trials involving over 1,400 subjects

Safety Database:

- 19 clinical trials
- 980 COPD patients on nebulized ensifentrine across 6 studies



Ensifentrine has a favorable benefit / risk profile

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ENHANCE program incorporates many elements of Phase 2 trials

	Phase 2b Trials (Study 203 / 205)[1,2]	ENHANCE 1 & 2 Trials[3,4]
Sites	US & Europe	US, Europe, & South Korea
Dosage	0.375, 0.75, 1.5, 3, 6 mg BID	3 mg BID
Number of patients	400 / study	800 / study
Length of study	4 weeks (efficacy & safety)	12 weeks (Primary Endpoint – lung function) 24 weeks (Secondary Endpoints – symptoms / QOL) 48 weeks (safety)
Entry criteria	• Monotherapy / Add on to LAMA • ICS use in ~40% (Study 203) • 30-80% predicted FEV_1 • Symptomatic: mMRC ≥ 2 (Study 205)	• Monotherapy / Add on to LAMA or LABA • ICS up to 20% • 30-70% predicted FEV_1 • Symptomatic: mMRC ≥ 2
Key endpoints	• Peak FEV_1 • FEV_1 (0-12 hrs) • Symptoms & QOL (E-RS and SGRQ) • Trough FEV_1	• Peak FEV_1 • FEV_1 (0-12 hrs) • Symptoms & QOL (E-RS and SGRQ) • Trough FEV_1

[1] *RPL554-CO-203, Singh D, et al., Respiratory Research 2020;*
[2] *RPL554-CO-205 Full Phase 2b Analysis Set, data on file; tiotropium (Spiriva®)*
[3] *https://clinicaltrials.gov/ct2/show/NCT04535986?term=ensifentrine&draw=2&rank=1*
[4] *https://clinicaltrials.gov/ct2/show/NCT04542057?term=ensifentrine&draw=2&rank=2*

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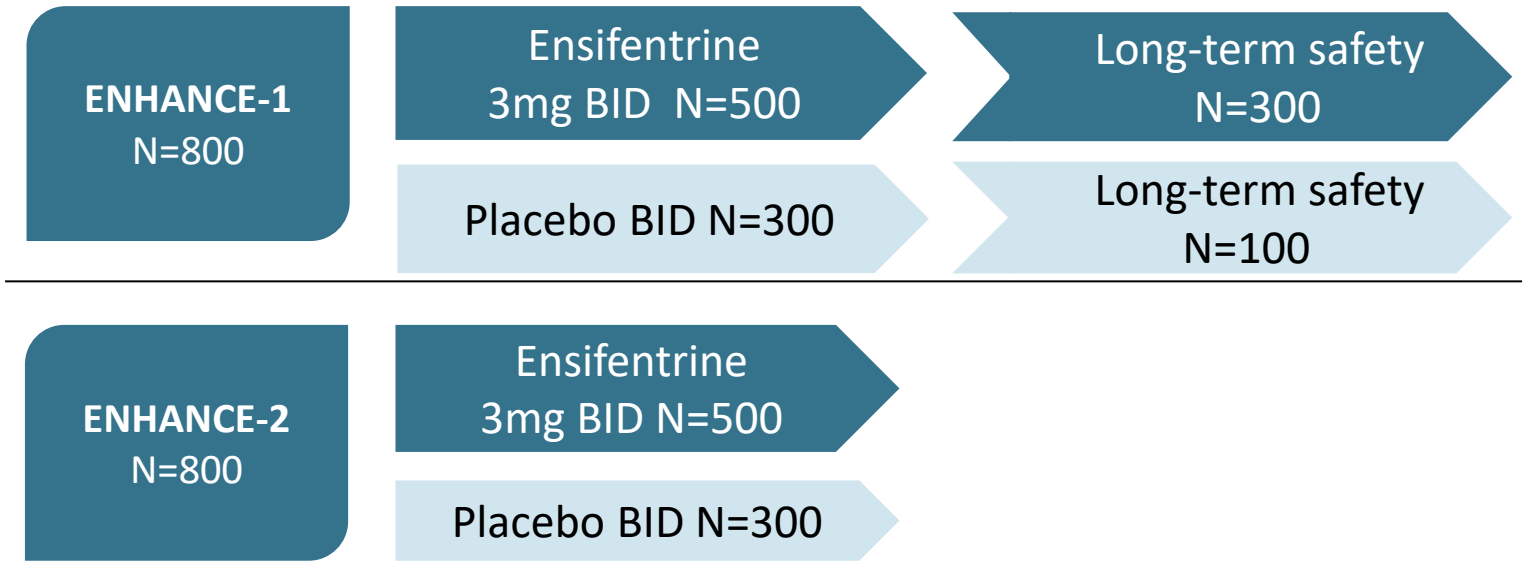
Pivotal Phase 3 program nearing completion

Two pivotal efficacy and safety studies: ENHANCE-1 and ENHANCE-2

Ensifentrine as a **N**ovel in**HA**led **N**ebulized **C**OPD th**E**rapy in moderate to severe COPD



Primary Endpoint

- FEV_1 (AUC over 12 hours) at week 12

Secondary Endpoints

- Symptoms (E-RS: COPD)
- Quality of Life (SGRQ)
- Other FEV_1 (trough, peak)

Other Endpoints

- Exacerbations

Patient population:

- LAMA or LABA background allowed (up to 50% of trial population) and ICS (up to 20% of population)
- 30-70% predicted FEV_1
- Symptomatic (mMRC ≥ 2)

Additional information:

- Long-term safety established in ENHANCE-1
- Sites in the US, EU and Asia

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ENHANCE-2 top-line data release in Q3

Anticipated data readout measures

Endpoint	Top-line Data	Powering Assumptions (90%) for detectable treatment effect
Primary endpoint	Improvement in lung function as measured by average forced expiratory volume in one second (FEV_1) area under the curve (AUC) 0-12 hours post dose at week 12	59 mL
Key secondary endpoints	COPD Symptoms (E-RS Total Score)	-1.2 units (MCID = -2 units)
	Health-related Quality of Life (SGRQ Total Score)	-3 units (MCID = -4 units)
	Overall safety data and other lung function measures	

Additional data including subgroup analysis and exacerbation data will be evaluated and disclosed at a later date

Ensifentrine Commercial Opportunity

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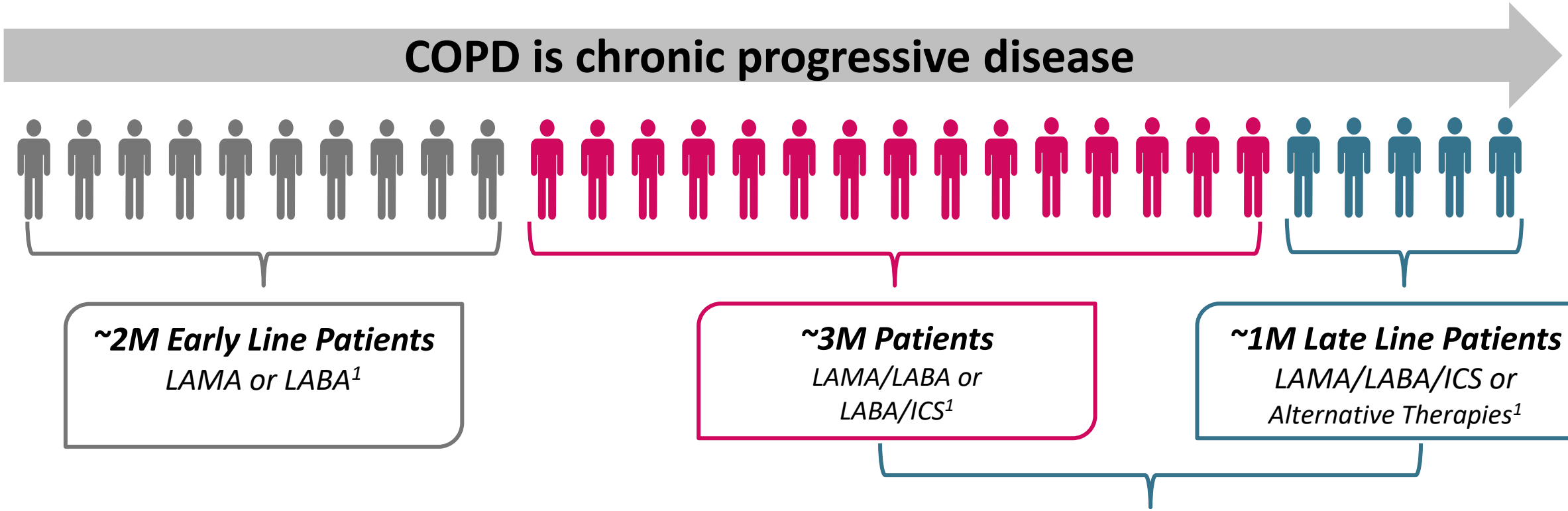
Significant market opportunity for ensifentrine at launch

~4M COPD patients maintained on dual/triple therapy[1]



Ensifentrine Initial Launch Opportunity: >1M patients (40% of patients remain symptomatic)[2-5]

Average annual WAC pricing of existing nebulized products: ***~$12k / year[6]***

[1]IQVIA Market Sizing Project 2020; [2]Verona I US MCOPD Integrated Conjoint Survey; [3]Mahler D, et al., Eur Respir J, 2014; [4]Vestbo J, et al., The Lancet, 2017; [5]Ferguson et al. Lancet Respir Med 2018; [6]Price Rx, Accessed March 2021

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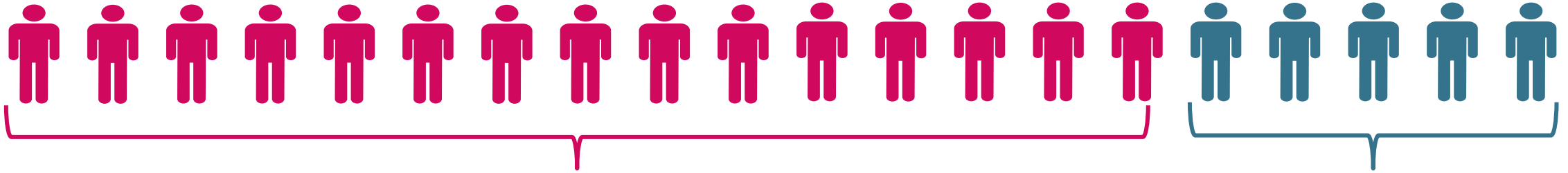
Ensifentrine market opportunity is in a targeted HCP network

~12K Pulmonologists in the US

Ensifentrine initial launch opportunity



~3M Patients
LAMA/LABA or LABA/ICS[1]

~1M Late Line Patients
LAMA/LABA/ICS or Alternative Therapies[1]

>1M patients remain symptomatic[2-5]

Pulmonologists and NPs/PAs will drive ensifentrine uptake[6]

[1]IQVIA Market Sizing Project 2020; [2]Verona I US MCOPD Integrated Conjoint Survey; [3]Mahler D, et al., Eur Respir J, 2014; [4]Vestbo J, et al., The Lancet, 2017; [5]Ferguson et al. Lancet Respir Med 2018; [6]Verona I US MCOPD Integrated Conjoint Survey

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Ensifentrine product profile is compelling

Opportunity for broad adoption and coverage at launch

MOA

- First-in-class PDE3 & PDE4 inhibitor
- Bronchodilation and anti-inflammatory effects in a single molecule

Dosing / Administration

- BID dosing
- Nebulization time 5-7 minutes

Ensifentrine

Efficacy

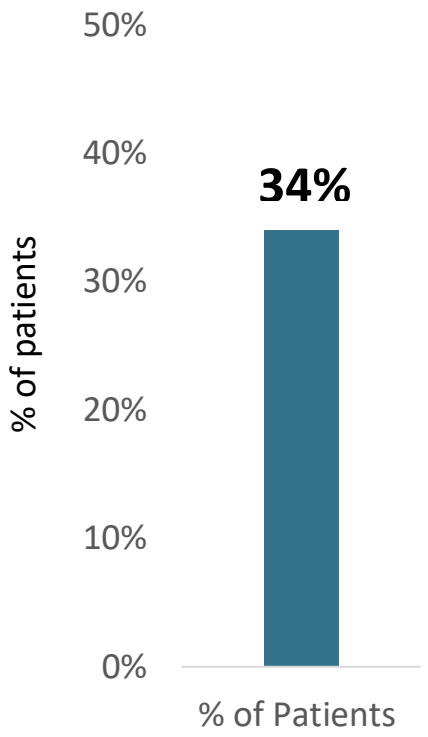
- Significantly improved lung function, symptoms, & QOL alone or in combination with SOC

Tolerability

- Adverse event profile similar to placebo
- No GI or CV effects

How often HCPs will prescribe ensifentrine

(N=114)



Payer Research: 35 payers covering >200m lives

>85%

of lives will be covered

Verona I US MCOPD Integrated Conjoint Survey

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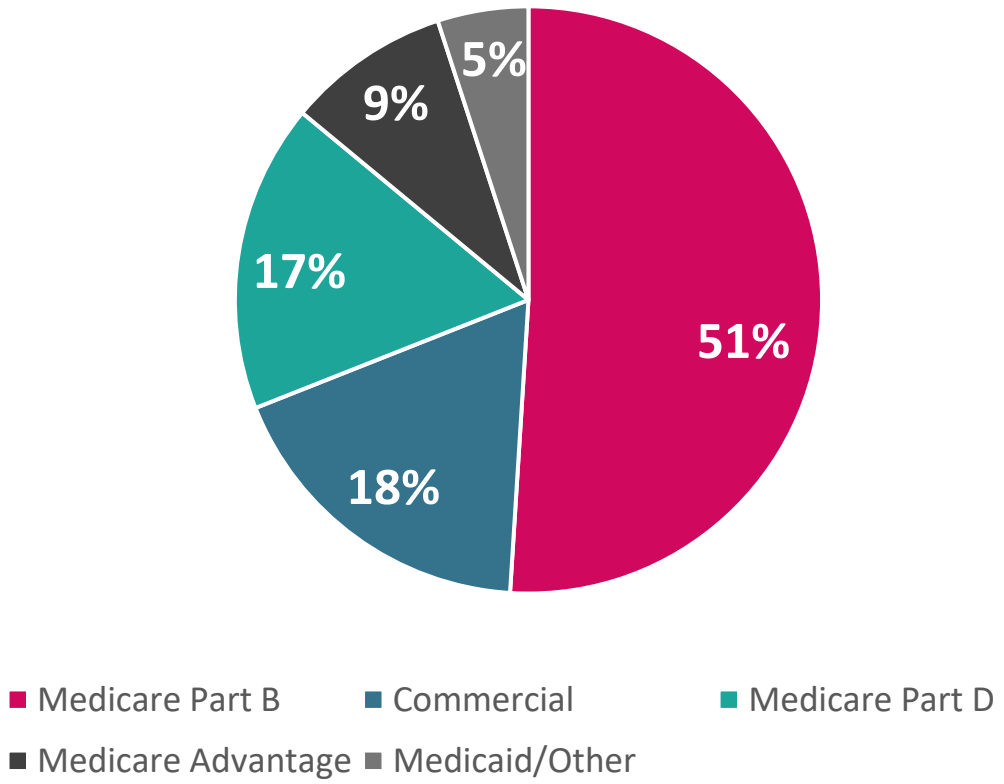
Current nebulizer payer dynamics are favorable

Premium pricing, lower out of pocket costs, & greater access

Nebulizers Coverage by Payer Type (Brovana, Yupelri, Perforomist)



Product	*Class*	*Avg Monthly $ WAC price[1]*
Brovana (Sunovion)	LABA	$1,073
Perforomist (Viatris)	LABA	$1,062
Yupelri (Viatris / Theravance)	LAMA	$1,103
Lonhala (Sunovion)	LAMA	$1,133

100% access with Medicare Part B*

* Open nebulizers (Brovana, Perforomist, & Yupelri)

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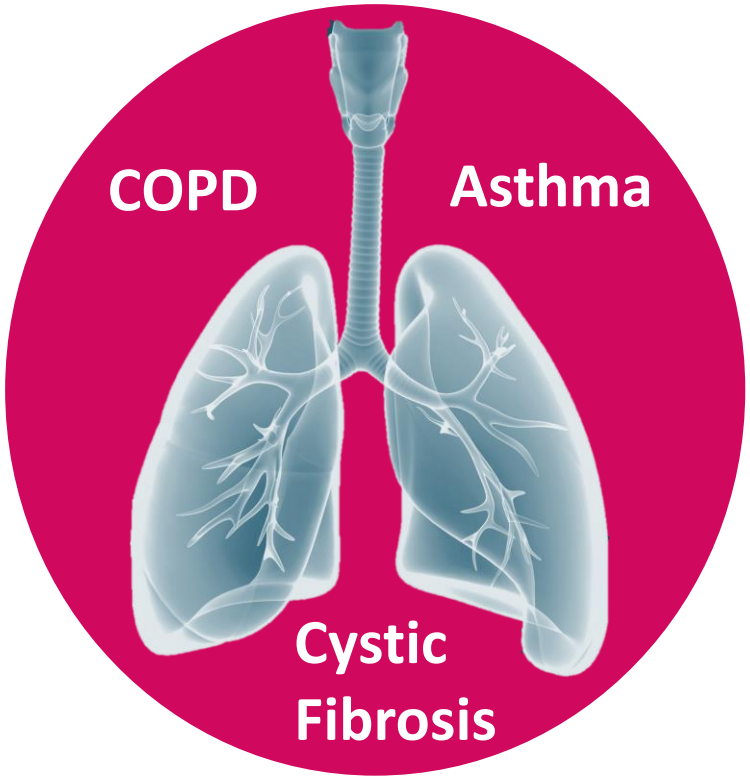
Ensifentrine: Significant life cycle opportunities

Profile supports “Pipeline in a Product”

Therapeutic Options



Delivery Options

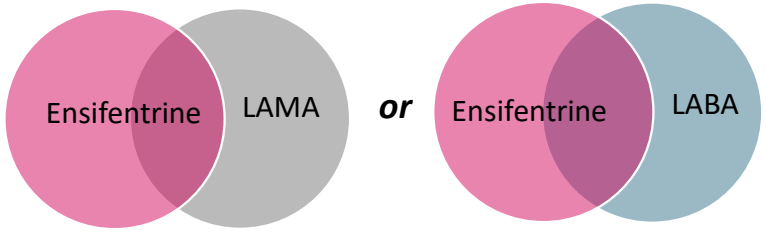
Nebulizer

DPI

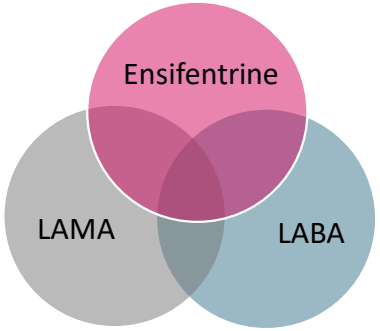
MDI

Potential Product Combinations

Dual



Triple



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Ensifentrine in ROW

Strategic partnerships to maximize ensifentrine's commercial value

United States:
~$10.5B in Sales[1]

Verona launch

China:
~$1B in Sales
(expected to double by 2030) [1]

- **$40M upfront:** $25M cash + $15M equity
- **Up to $179M** in potential milestones
- Tiered **double-digit royalties**

EU:
~$2.7B in Sales[1]

Potential out-license

[1]*IQVIA MIDAS, IQVIA MIDAS Medical*

Patent protection through the mid 2030s

Suspension formulation, polymorph, and manufacturing key patents

Invention	Granted/Pending Application	Estimated Patent Expiry
Polymorph	Granted US, Europe, Asia, other	2031
Suspension formulations	Granted US, Europe, Asia, other	2035
Manufacturing process	Granted Europe, US, pending China, other	2037
MDI formulation	Granted UK, pending US, Europe, China, other	2039
DPI formulation	Pending	2040
Salt forms	Granted US, pending Europe, China, other	2036
Treatment of cystic fibrosis	Granted US, Europe, pending US, other	2035
Combinations with beta-agonists	Granted US, Europe, pending Canada	2034
Combinations with anti-muscarinics	Granted US, Europe, China, pending other	2034
Composition of matter	Granted US, Europe, Asia, other	2020

Up to 5 years of additional exclusivity
through patent term extension

Verona is well positioned to maximize the value of ensifentrine

Advanced Phase 3 asset with significant commercial opportunities

Large market with significant unmet need

- *~$10.5B US sales[1]*
- *>1M patients remain symptomatic despite dual/triple treatment[2-4]*

Advanced Phase 3 asset

- *Pivotal data readouts expected in Q3 and around the end of 2022*
- *Earlier clinical trials studied >1,400 subjects*

Targeted commercial effort

- *Focused launch opportunity (~12k physicians)[5,6]*
- *Medicare Part B is primary method of reimbursement of nebulizers[7]*

Well capitalized to achieve near term milestones

- *Cash runway through at least 2023*

[1]IQVIA MIDAS, IQVIA MIDAS Medical; [2]Ferguson et al. Lancet Respir Med 2018; [3]Mahler D, et al., Eur Respir J, 2014; [4]Vestbo J, et al., The Lancet, 2017; [5]Verona I US MCOPD Integrated Conjoint Survey; [6]IQVIA Market Sizing Project 2020; [7]Verona_IQVIA_LAAD Quarterly Reporting Report 2_June 2021- Data for MAT Dec 2020

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Thank you

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