



World COPD Awareness Day

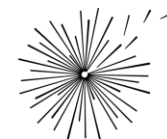
17 November 2021

#COPDAWARENESS

**Developing innovative
therapies for the treatment
of respiratory diseases**

November 2021

Nasdaq: VRNA | www.veronapharma.com



Verona Pharma
Breath of Innovation™

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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 sales¹
- >1M patients remain symptomatic despite dual/triple treatment²⁻⁴

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 adoption⁵
- Primary reimbursement channel is Medicare Part B⁶

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 mid-year 2022 ENHANCE-1 top-line near 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

 In active development

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 (Quarter end September 30)	\$166.5M
Operating expenses* (Quarter end September 30)	\$28.5M
Market cap (Nasdaq: VRNA) (as of November 8, 2021)	\$310.3M
Shares outstanding (as of November 5, 2021)	60.0M ADSs

*net of non-cash share based comp



COPD: a global problem

>384 million patients suffering worldwide and the 3rd leading cause of death¹

Prevalence of COPD in US:
~25M patients²
~6M treated chronically



~\$10.5B in maintenance COPD sales⁵

Prevalence of COPD in China:
~100M patients³



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

Prevalence of COPD in EU:
~70M patients⁴

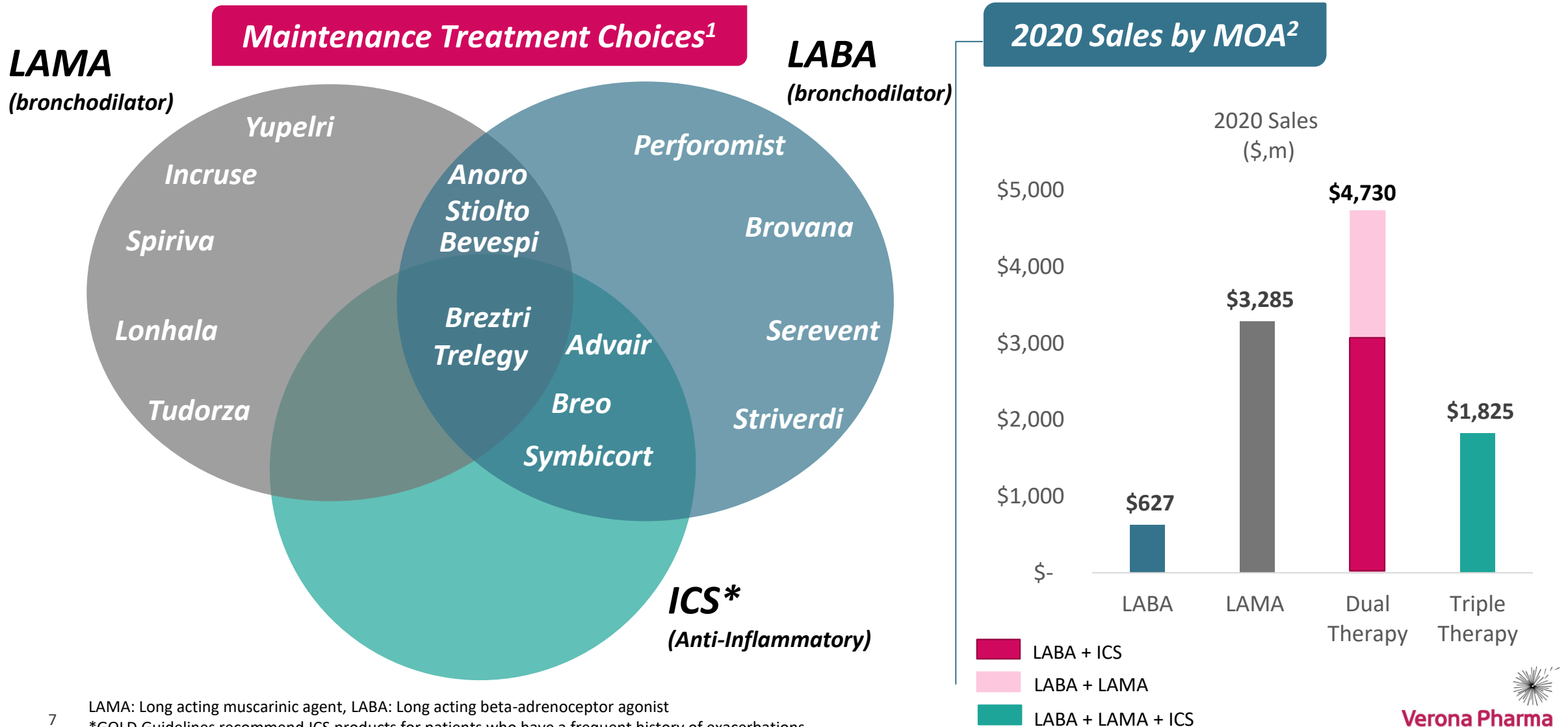


~\$2.7B in sales⁵

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

Current COPD treatments limited to 3 MoAs

LAMAs & dual therapies generate the majority of product sales



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

COPD places a tremendous burden on US medical system & patients

US Medical System



~1.9M Emergency room visits¹



~740K Hospitalizations¹



~\$50B in costs
(Direct/Indirect)²

Patients

70% COPD patients have limited activity³

53% COPD patients feel socially limited³

51% COPD patients limited at work³

Execution driven leadership team

Decades of respiratory and commercialization experience

David Zaccardelli, Pharm D <i>President & CEO</i>			
Mark Hahn, CPA <i>CFO</i>			
Kathy Rickard, MD <i>CMO</i>			
Chris Martin <i>VP, Commercial</i>			
Peter Spargo, PhD <i>Senior VP, CMC</i>			
Claire Poll, LLB <i>General Counsel</i>			
Caroline Diaz <i>Senior VP, Regulatory Affairs</i>			
Tara Rheault, PhD <i>VP of R&D</i>			

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

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

Ensifentrine impacts 3 key mechanisms in respiratory disease

Airway Smooth Muscle¹⁻⁴



PDE3, PDE4



↑ cAMP

Bronchial relaxation

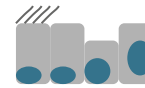


bronchodilation

Inflammatory Cells^{5,6}



Neutrophils
PDE4



Epithelial cells
PDE3, PDE4



Macrophages
PDE3, PDE4



Eosinophils
PDE4



Lymphocytes
PDE3, PDE4



Fibroblasts
PDE4

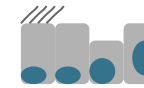
↑ cAMP

↓ Cell proliferation
survival & activity



anti-inflammatory effects

Epithelial Cells^{7,8}



PDE3, PDE4



↑ cAMP
↑ CFTR activation
↑ Ciliary function



mucociliary clearance

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

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 FEV₁
- FEV₁ (AUC over 12 hours) at week 12
- Symptoms & QOL (E-RS: COPD, SGRQ)
- Other FEV₁ (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 FEV₁

Ensifentrine: Efficacy demonstrated in two large Phase 2b trials

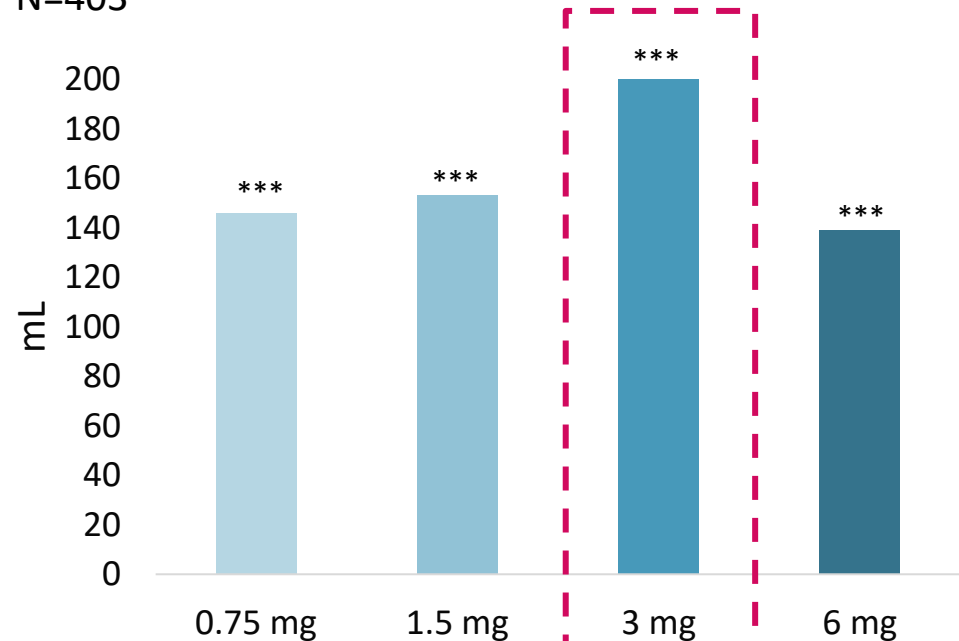
Improvements in lung function seen at Phase 3 trial dose

Study 203: Ensifentrine Monotherapy¹

Lung function

Peak Change FEV₁ (mL) at day 28

N=403



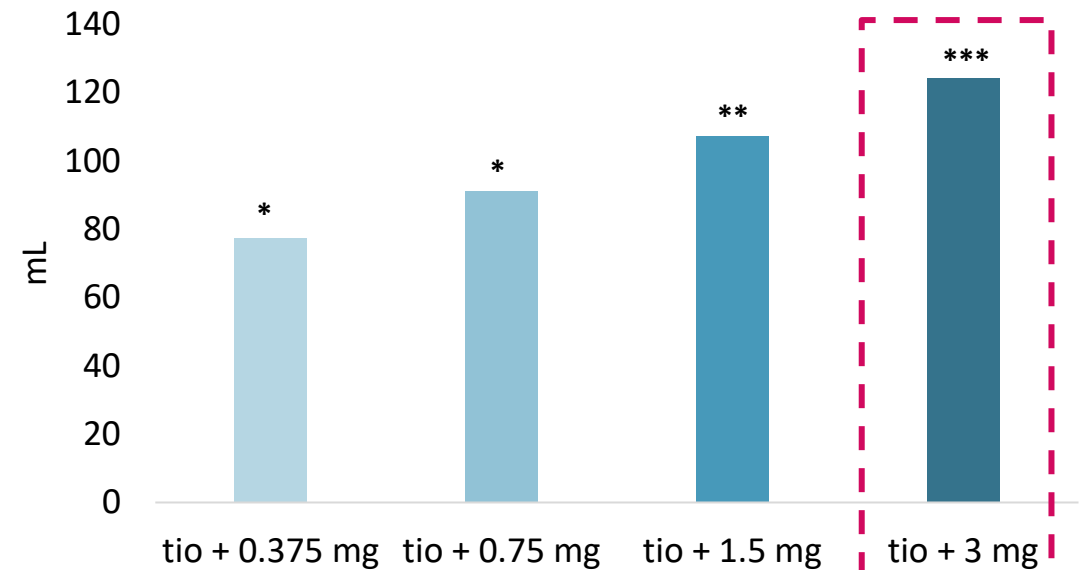
*Peak Change from Day 1 in Baseline in FEV₁ (mL) on Day 28, Week 4, Primary endpoint met; placebo corrected
***p ≤ 0.001

Study 205: Ensifentrine + Tiotropium²

Lung function

Peak Change FEV₁ (mL) at week 4

N=413



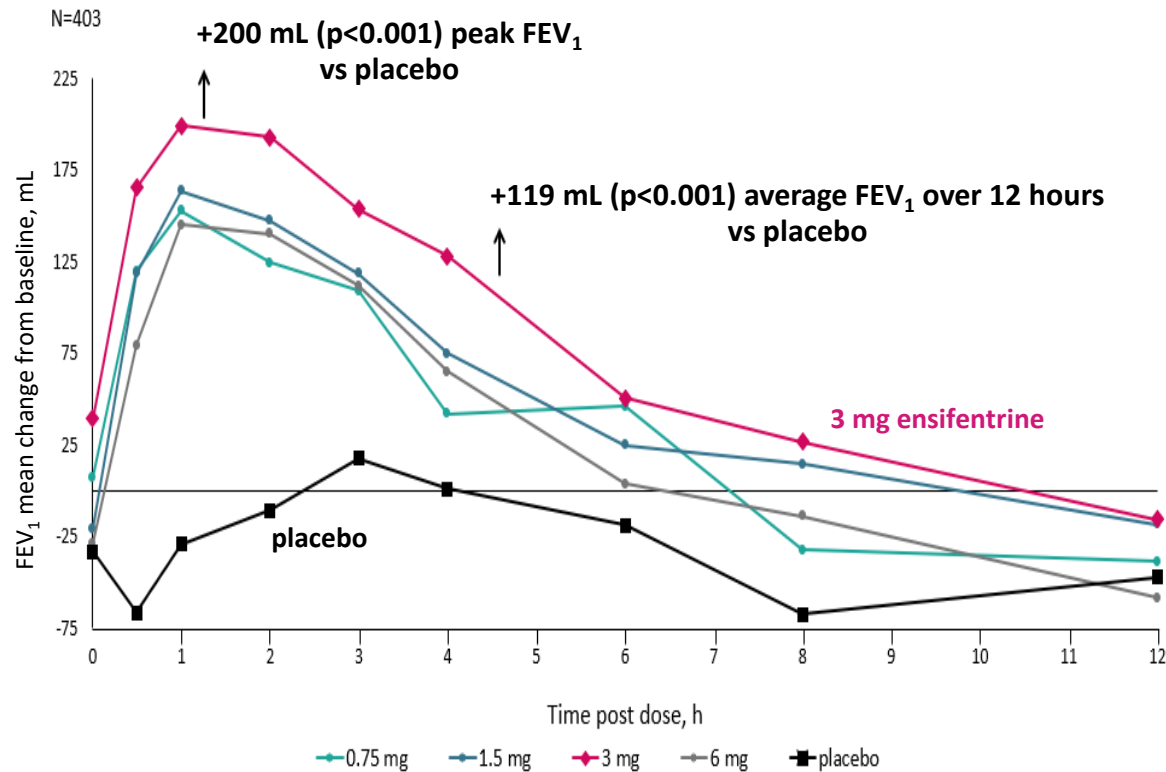
Primary endpoint met; placebo corrected

***p ≤ 0.001 **p ≤ 0.01 *p ≤ 0.05

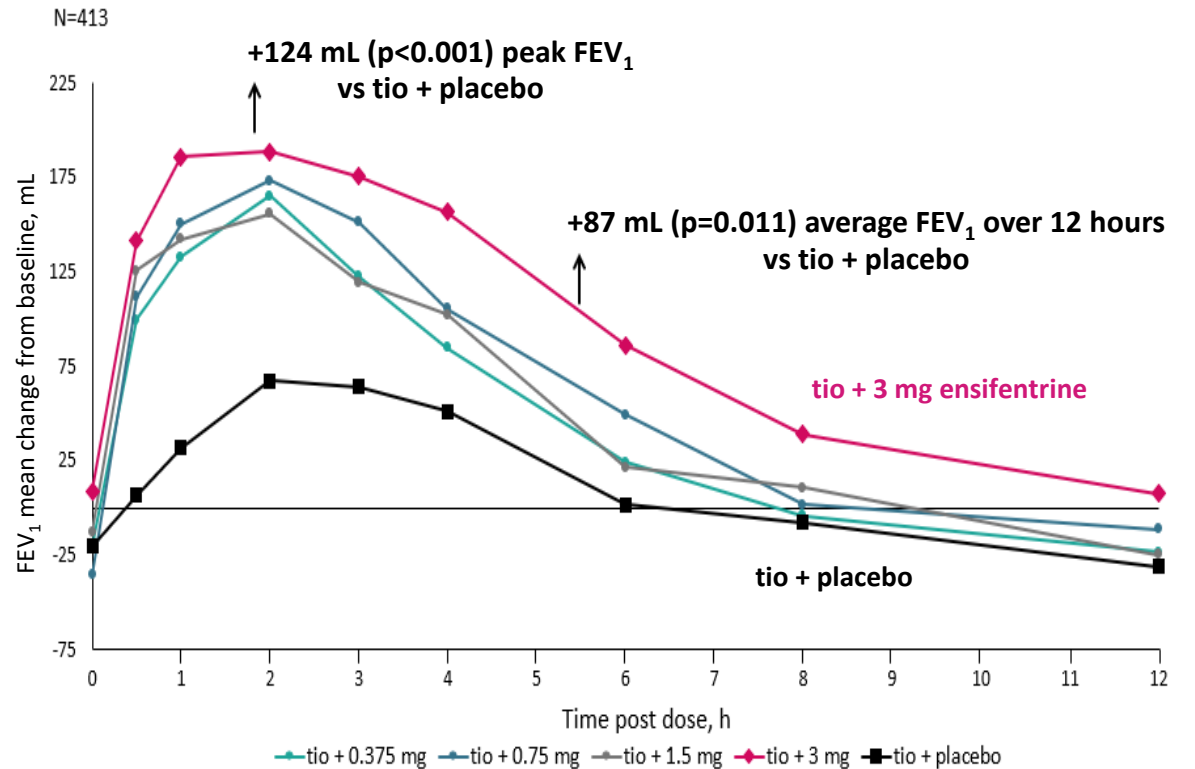
Ensifentrine: Spirometry across Phase 2b program

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

Study 203: Ensifentrine Monotherapy¹



Study 205: Ensifentrine + Tiotropium²



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

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

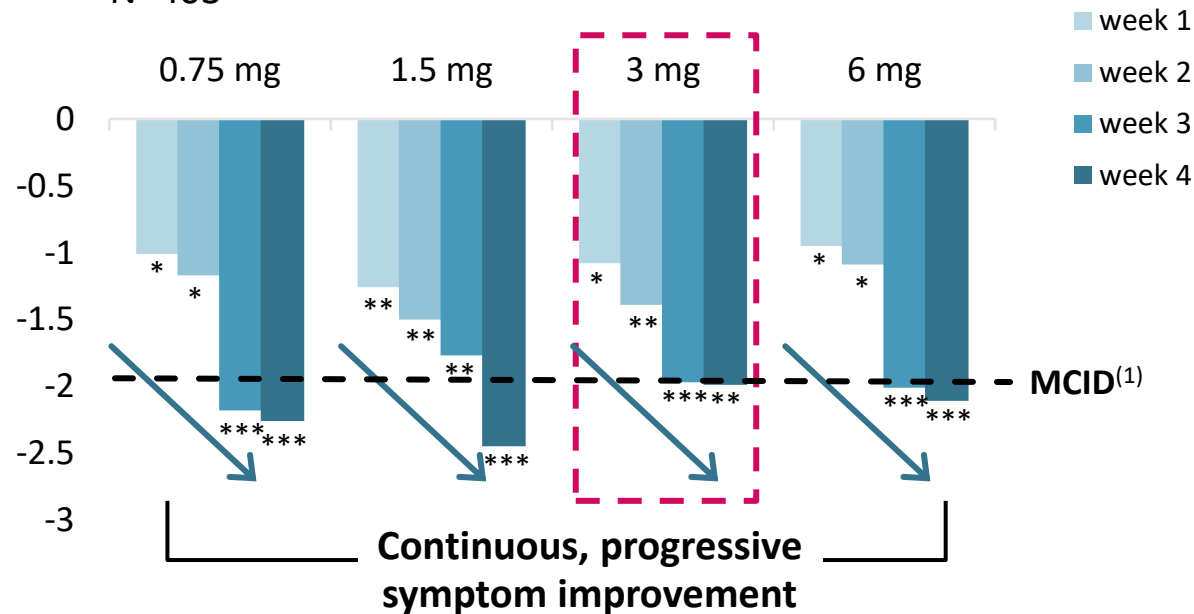
Ensifentrine: Symptom improvement in two large Phase 2b trials

Improvements seen at Phase 3 trial dose

Study 203: Ensifentrine Monotherapy¹

Symptom relief

Total Score E-RS: COPD by Week
N=403



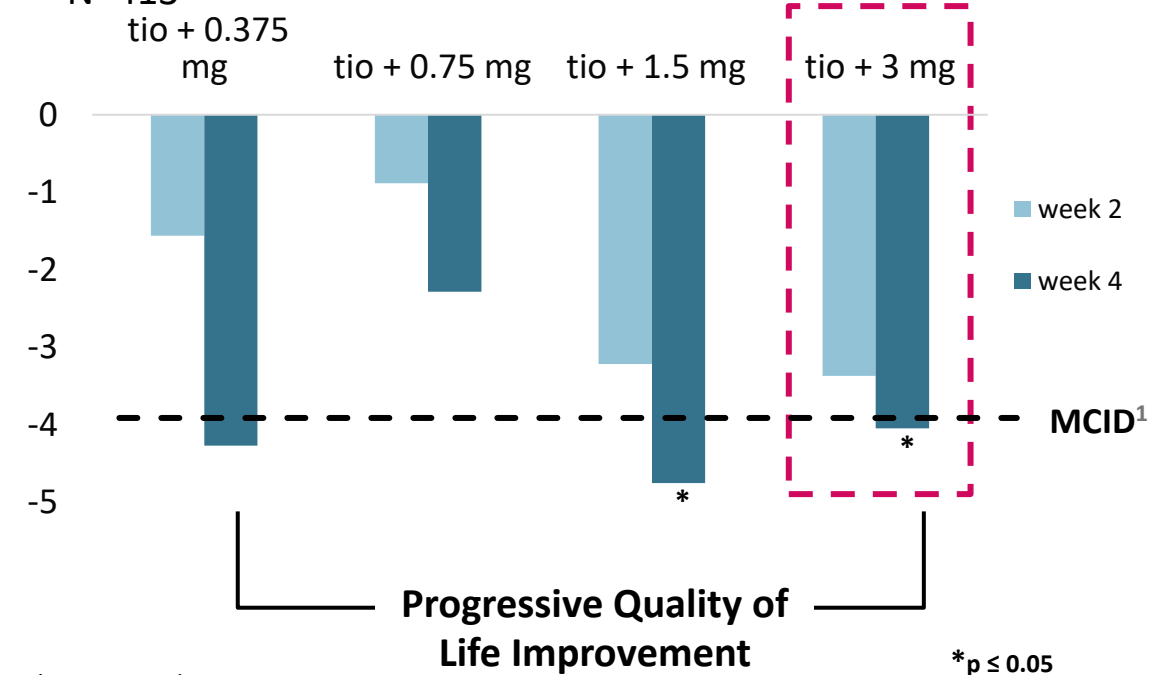
Placebo corrected

(1) Minimal clinically important difference

Study 205: Ensifentrine + Tiotropium²

Symptom & QOL relief

Total Score SGRQ-C: COPD by Week
N=413



Placebo corrected

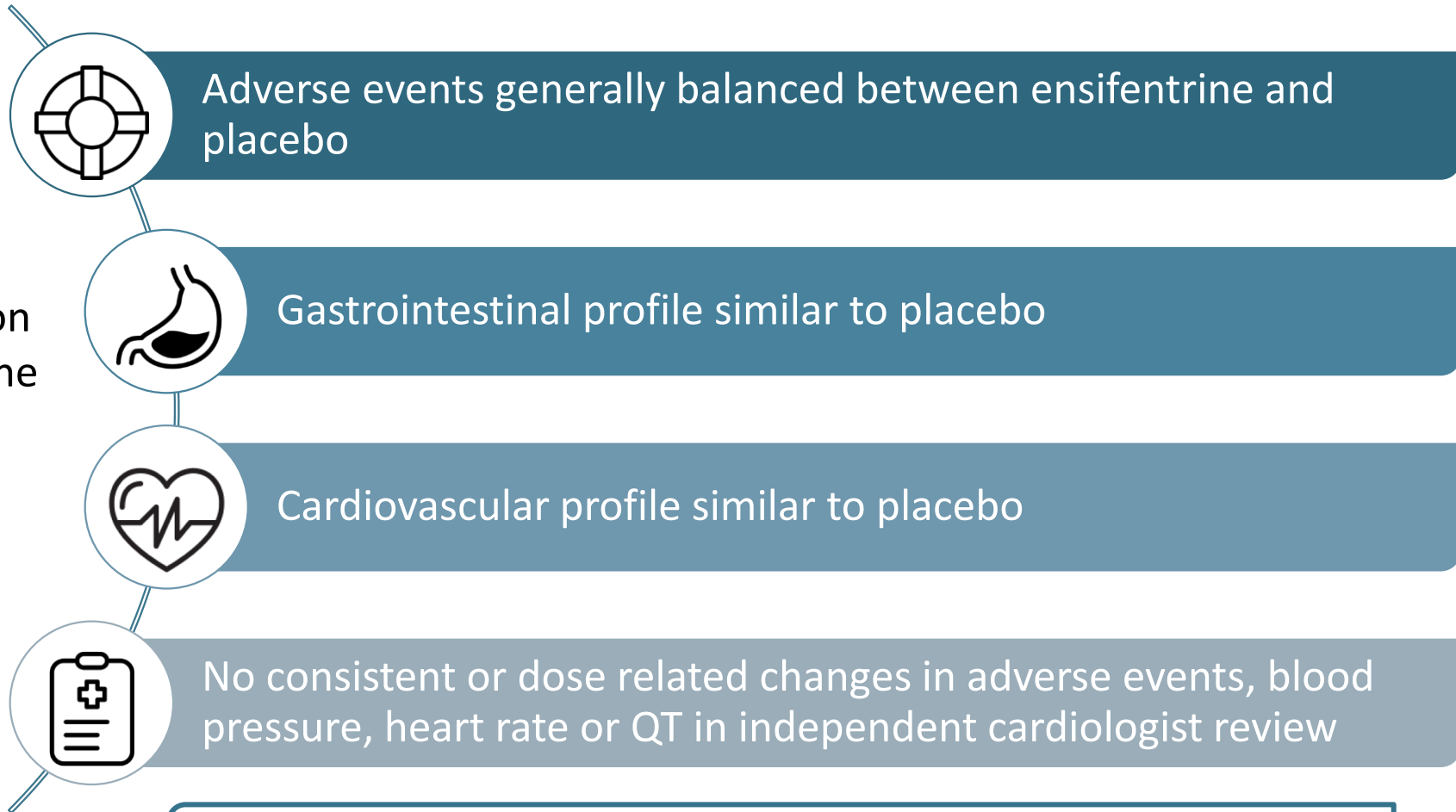
¹Minimal clinically important difference (-4 units)

Safety profile similar to placebo

Ensifentrine well tolerated at all doses in trials involving over 1,300 patients

Safety Database:

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



Ensifentrine has a favorable benefit / risk profile

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	<ul style="list-style-type: none"> • Monotherapy / Add on to LAMA • ICS use in ~40% (Study 203) • 30-80% predicted FEV₁ • Symptomatic: mMRC ≥ 2 (Study 205) 	<ul style="list-style-type: none"> • Monotherapy / Add on to LAMA or LABA • ICS up to 20% • 30-70% predicted FEV₁ • Symptomatic: mMRC ≥ 2
Key endpoints	<ul style="list-style-type: none"> • Peak FEV₁ • FEV₁ (0-12 hrs) • Symptoms & QOL (E-RS and SGRQ) • Trough FEV₁ 	<ul style="list-style-type: none"> • Peak FEV₁ • FEV₁ (0-12 hrs) • Symptoms & QOL (E-RS and SGRQ) • Trough FEV₁

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

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

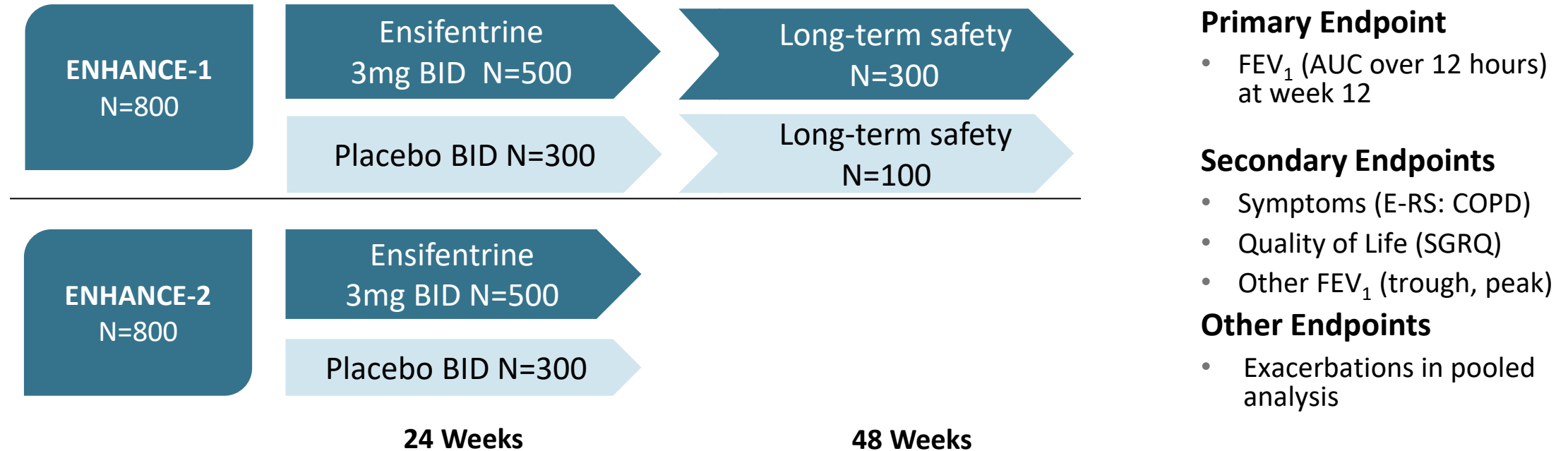
³<https://clinicaltrials.gov/ct2/show/NCT04535986?term=ensifentrine&draw=2&rank=1>

⁴<https://clinicaltrials.gov/ct2/show/NCT04542057?term=ensifentrine&draw=2&rank=2>

Pivotal Phase 3 program nearing completion

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

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



Patient population:

- LAMA or LABA background allowed (up to 50% of trial population) and ICS (up to 20% of population)
- 30-70% predicted FEV₁
- Symptomatic (mMRC ≥ 2)

Additional information:

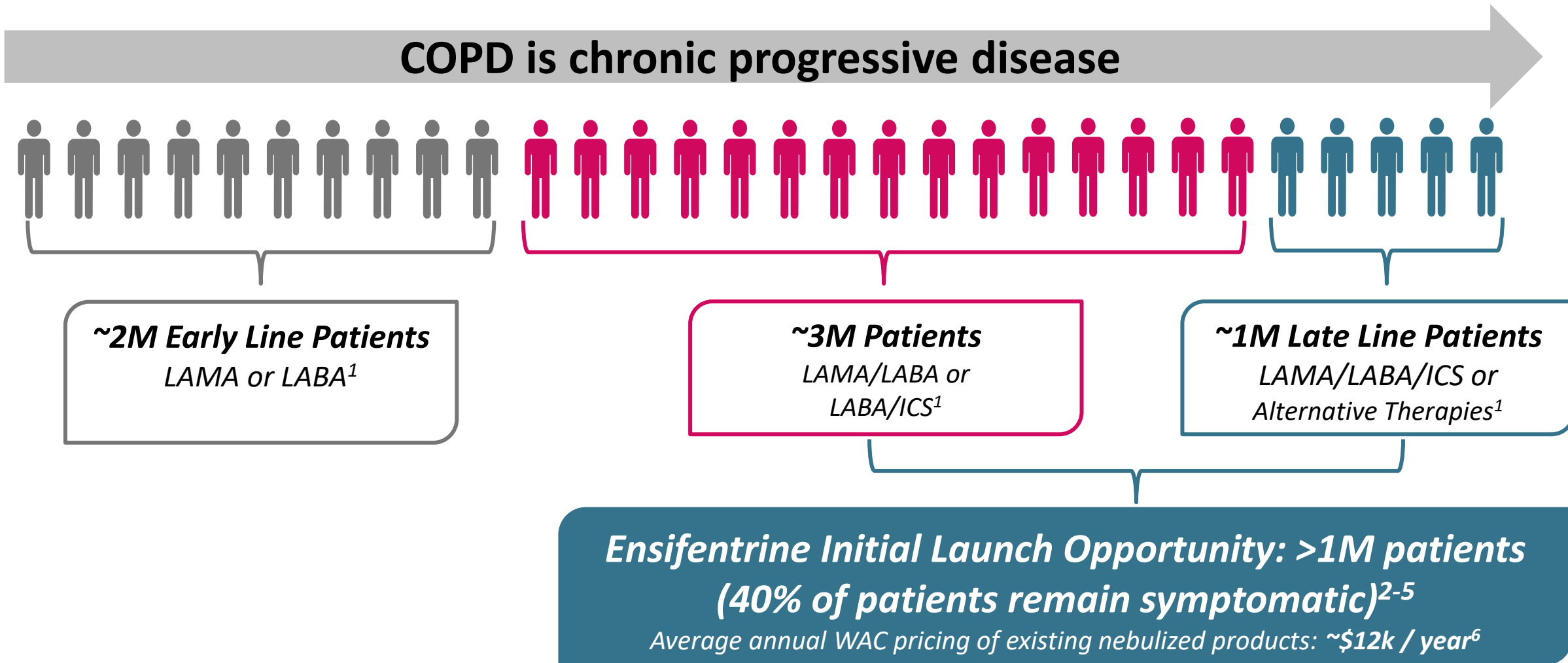
- Long-term safety established in ENHANCE-1
- Sites in the US, EU and Asia



Ensifentrine Commercial Opportunity

Significant market opportunity for ensifentrine at launch

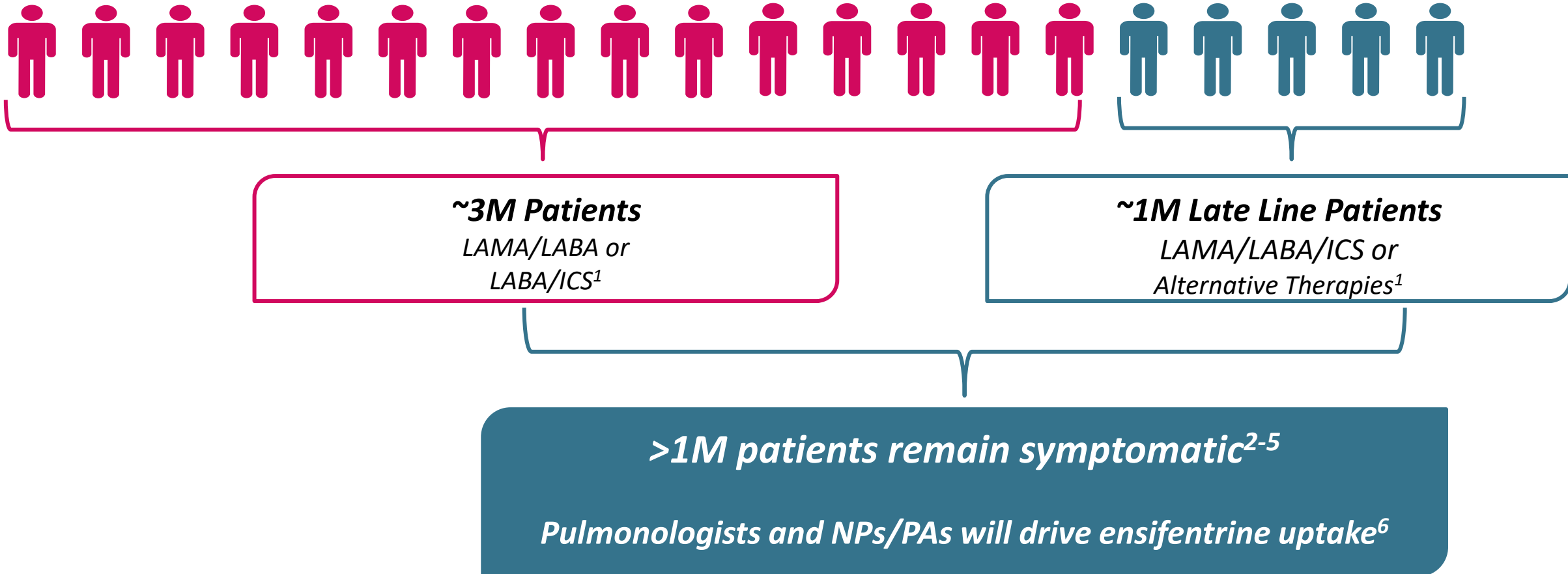
~4M COPD patients maintained on dual/triple therapy¹



Ensifentrine market opportunity is in a targeted HCP network

~12K Pulmonologists in the US

Ensifentrine initial launch opportunity



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

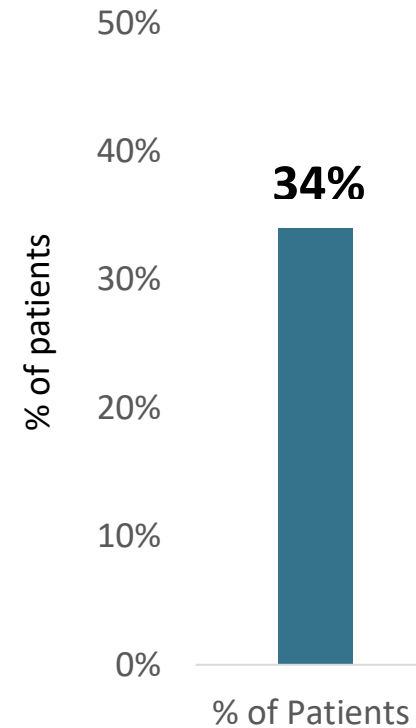
Efficacy

- 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

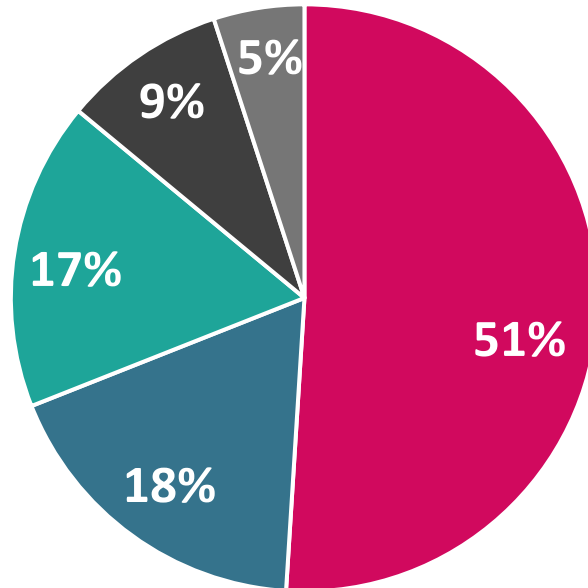
>85%

of lives will be covered

Current nebulizer payer dynamics are favorable

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

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



■ Medicare Part B ■ Commercial ■ Medicare Part D
■ Medicare Advantage ■ Medicaid/Other

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)

Device preference can influence therapy choice¹

Nebulizers have perceived advantages over other delivery methods



	Nebulizer	DPI/ MDI
Efficacy	✓	✗
Proper Usage	✓	✗
Convenience	✗	✓
Cost / Reimbursement	✓	✗

Nebulizer

- **Efficacy:** Perceived to be more efficacious by some HCPs
- **Proper Usage:** Limited patient errors due to use of natural breath
- **Cost/reimbursement:** Favorable coverage and low out of pocket costs²

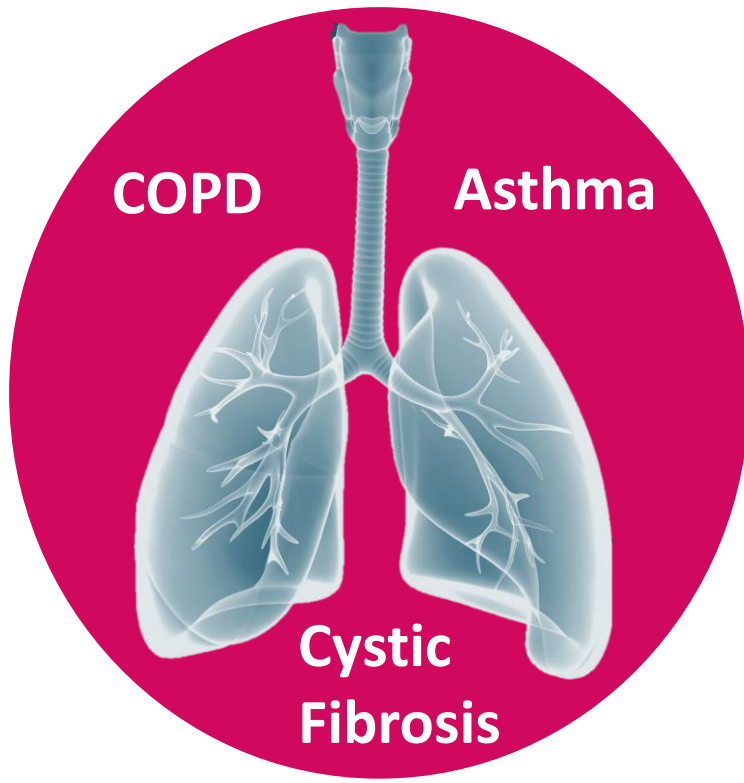
DPI/MDI

- **Convenience:** More portable and treatment administration is fast with minimal cleaning required

Ensifentrine: Significant life cycle opportunities

Profile supports “Pipeline in a Product”

Therapeutic Options



Delivery Options



Nebulizer

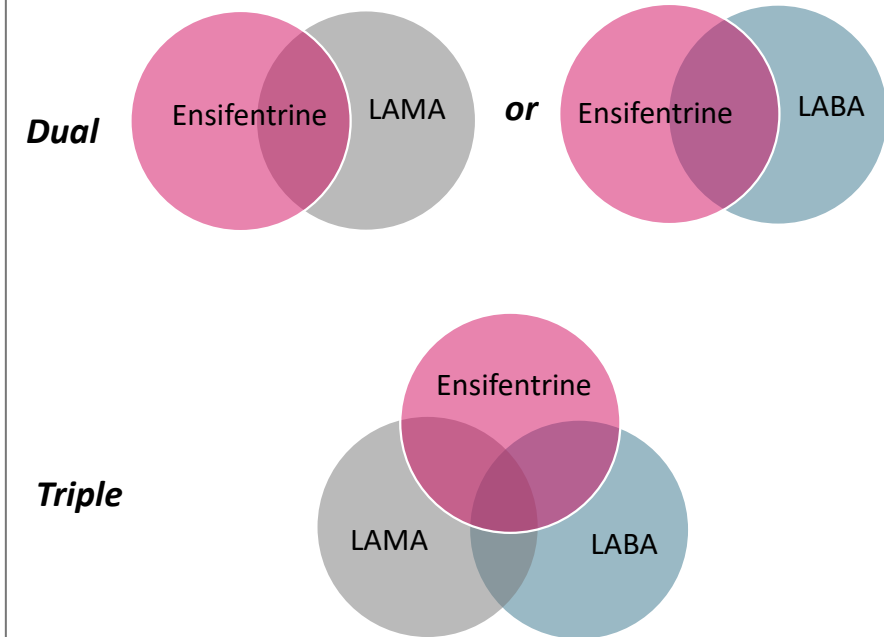


DPI



MDI

Potential Product Combinations



Ensifentrine in ROW

Strategic partnerships to maximize ensifentrine's commercial value

United States:
~\$10.5B in Sales¹



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 Sales¹



Potential out-license

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 sales¹*
- *>1M patients remain symptomatic despite dual/triple treatment²⁻⁴*

Advanced Phase 3 asset

- *Pivotal Phase 3 program nearing completion*
- *Earlier clinical trials studied >1,300 patients*

Targeted commercial effort

- *Focused launch opportunity (~12k physicians)^{5,6}*
- *Medicare Part B is primary method of reimbursement of nebulizers⁷*

Well capitalized to achieve near term milestones

- *Cash runway through at least 2023*



Thank you