Corporate Presentation

January 2023

Forward Looking Statements

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In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. These statements involve known and unknown risks, uncertainties and other important factors that may cause our 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 known risks and uncertainties are described in detail in our filings with the Securities and Exchange Commission (the "SEC") from time to time. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and we undertake no obligation to revise or update this presentation to reflect events or circumstances after the date hereof.

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Late-Stage Clinical Biotech Focused on Immunology

PROGRAM	CLASS (Route of Admin.)	INDICATION	RESEARCH / PRE-CLINICAL / PHASE 1 / PHASE 2 / PHASE 3	RIGHTS
Seralutinib (GB002)	PDGFR, CSF1R, c-KIT Inhibitor (Inhaled)	Pulmonary Arterial Hypertension (PAH)	Completed Phase 2 TORREY Study; Met Primary Endpoint; Well-Tolerated → Ph. 3: 2H23*	WW
		Pulmonary Hypertension Associated with Interstitial Lung Disease (PH-ILD)	Development Program Expected to Commence in 2H23 / 1H24	WW
GB5121	CNS-Penetrant, BTK Inhibitor (Oral)	Primary CNS Lymphoma (PCNSL)	Phase 1b/2 Ongoing	WW
GB7208	CNS-Penetrant, BTK Inhibitor (Oral)	Multiple Sclerosis (MS)	Preclinical	WW

*We expect to commence a Phase 3 PAH study in the second half of 2023, subject to discussions with regulators.
WW = worldwide; CNS = central nervous system.

Seralutinib (GB002)

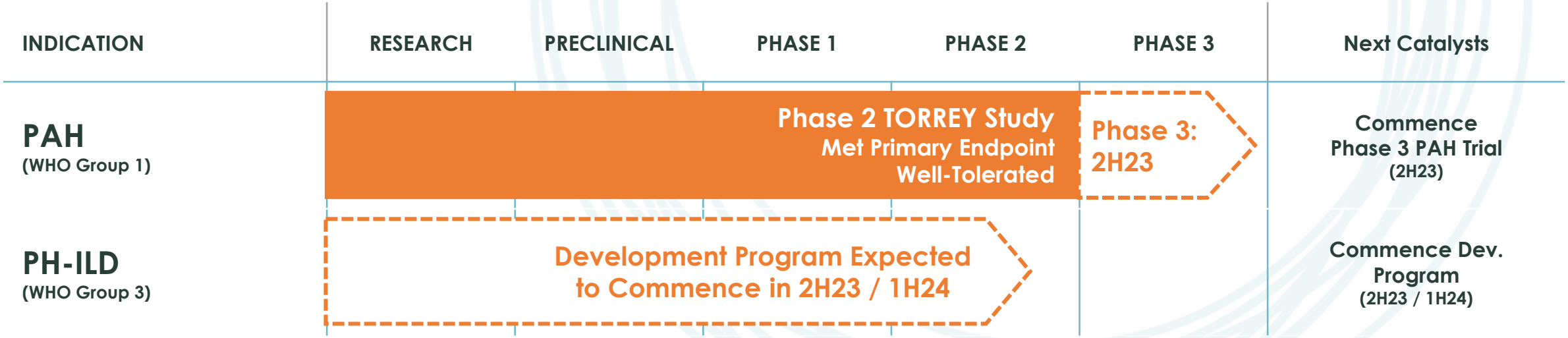
Inhaled PDGFR, CSF1R & c-KIT Inhibitor

Pulmonary Arterial Hypertension (PAH)

Seralutinib (GB002): Potential To Deliver Disease-Modifying Effects to Patients with PAH

Product Candidate Description

- Inhaled PDGFR, CSF1R, and c-KIT kinase inhibitor designed for PAH
- Positive Phase 2 Clinical Trial Results in PAH Patients (TORREY Study)
  - Met primary endpoint (reduction in PVR v. placebo; p = 0.0310) and well tolerated
  - Consistent, favorable treatment effect seen in 6MWD, Echo, NT-proBNP & Reveal 2.0 Risk Score
- Patent protection to 2039[1]; Orphan Drug Designation from FDA and EMA



PVR = pulmonary vascular resistance; PDGFR = platelet derived growth factor; CSF1R = colony stimulating growth factor 1 receptor; 6MWD = 6-minute walk distance.

1) Includes assumption of maximum 5 years of patent term extension. Corresponding patent(s) and patent application(s) with compound-specific claims. Total patent life with patent term extension cannot exceed 14 years from approval.

What Do Currently Available Therapies Do?

- ERAs
- Prostacyclins
- PDE-5is
- sGC stimulators

→ **Primarily work as vasodilators – dilating blood vessels**

No approved therapy addresses underlying causes of disease

ERA = endothelin receptor agonist; PDE-5i = phosphodiesterase-5 inhibitor; sGC stimulators = soluble guanylate cyclase stimulators.
Source: Adapted from Humbert, et al., N Engl J Med 2004, 351:1425; LeVarge, et al. Ther Clin Risk Manag. 2015; Jing, et al. AJRCCM, 2011; Channick, et al. Lancet, 2001.

Contributing Factors to Vascular Remodeling

Role of PDGFR, CSF1R, c-KIT and Interactions with BMPR2

⚠ PDGFR signaling

↓

Proliferation

and

Fibrosis

c-KIT+ cells ↑

↓

Inflammation

and

Proliferation

CSF1R+ macrophages secrete PDGF

↓

Inflammation

and vascular remodeling

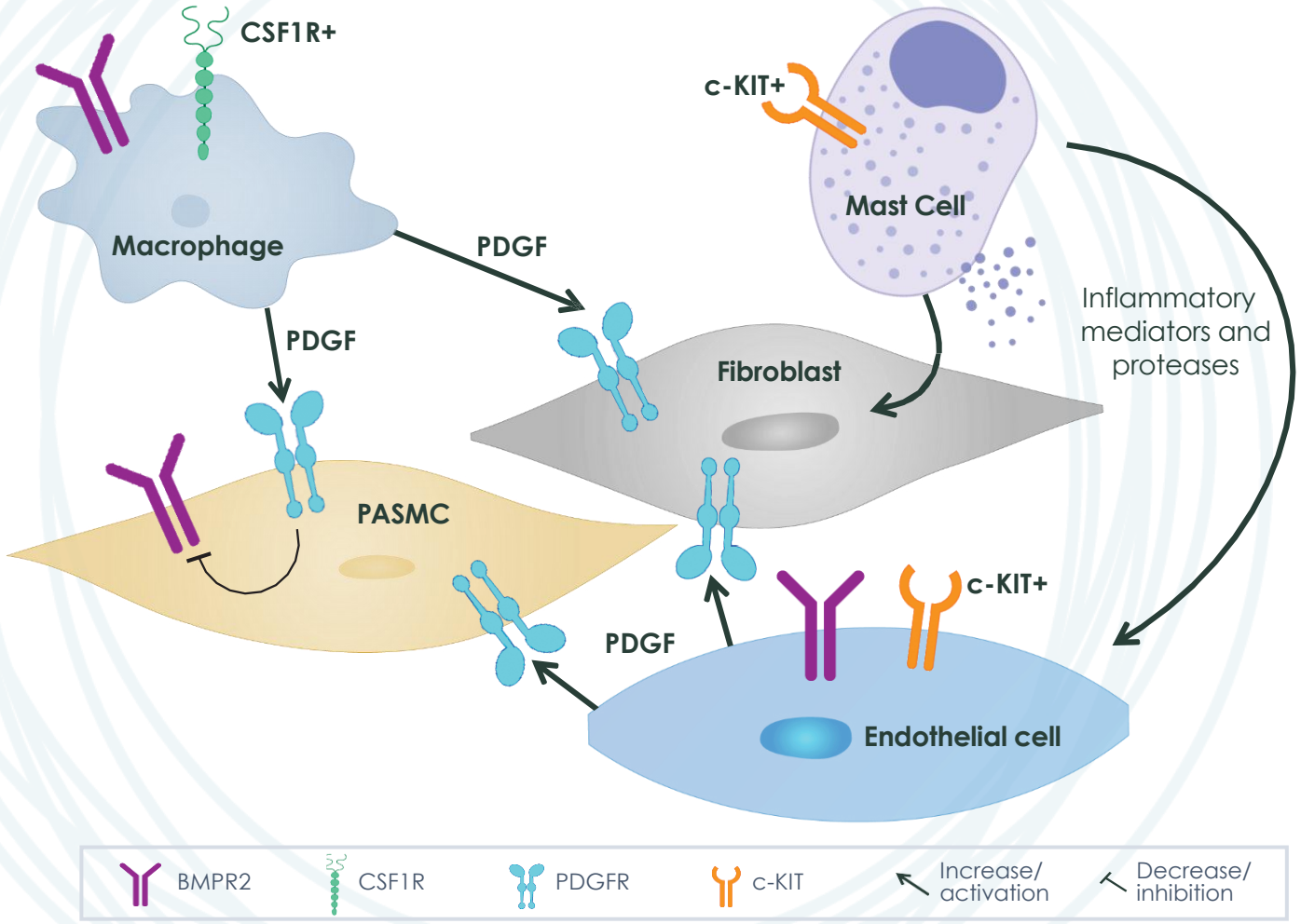
PDGF activation

↓ **BMPR2**

↓

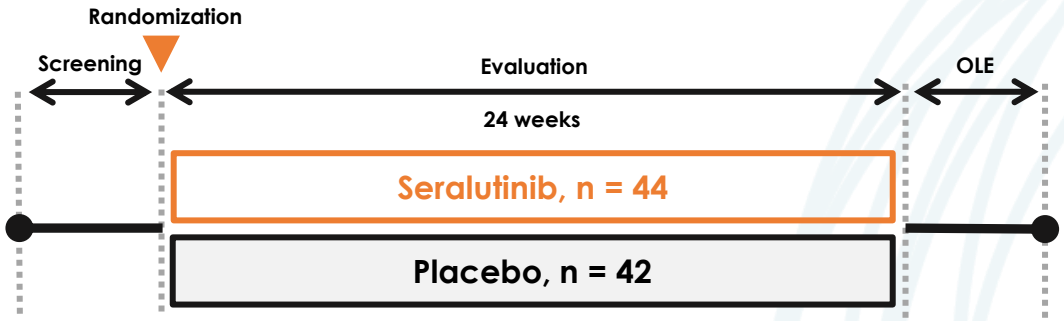
↑ PASMC

Proliferation



PDGFR = platelet derived growth factor receptor; CSF1R = colony stimulating factor 1 receptor; PASMC = pulmonary arterial smooth muscle cells.
Source: Grimminger et al dv Exp Med Biol 2010; 661:435; Zhou et al Cell 2018;172:744; Montani et al AJRCCM 2011; 184:116; Chen et al BMC Genomics 2016 17:781.

TORREY: Phase 2 Study of Seralutinib in Patients With Functional Class II and III PAH



TORREY STUDY

Patient Population	**Stable FC II & III PAH patients** on background therapy, including double & triple therapy
Endpoints	**Primary:** ΔPVR at Week 24 **Key Secondary:** Δ6MWD at Week 24† **Exploratory:** Includes NT-proBNP, Echo
Dosing Regimen	**Titrated up to 90mg BID** *(Starts 60mg BID; protocol allows for down-titration to 45mg BID)*

Enrolled relatively low-risk PAH patient population; most well-controlled PAH pop. to meet primary efficacy endpoint*

Met primary endpoint; seralutinib treatment benefit observed across primary, secondary and exploratory endpoints

Treatment well tolerated - vast majority of patients able to achieve and maintain 90mg BID dosing

*As determined by baseline PVR & 6MWD, we believe that TORREY enrolled the most well-controlled PAH patient trial population to meet its primary efficacy endpoint.
FC = Functional Class; OLE = open label extension; PVR = pulmonary vascular resistance; 6MWD = six-minute walk distance; BID = twice-daily dosing.
Source: clinical trials.gov/NCT04456998
†Trial was not powered to demonstrate a statistically significant difference in 6MWD.

Selected Baseline Disease Characteristics
(ITT Population)

Characteristic	Placebo (N=42)	Seralutinib (N=44)	Total (N=86)
Number of PAH background therapies – n (%)			
1	2 (4.8)	1 (2.3)	3 (3.5)
2	16 (38.1)	18 (40.9)	34 (39.5)
3	24 (57.1)	25 (56.8)	49 (57.0)
WHO FC – n (%)			
Class II	20 (47.6)	**30 (68.2)**	50 (58.1)
Class III	**22 (52.4)**	14 (31.8)	36 (41.9)
PVR (dyne*s/cm^5) – mean (SD)	661.3 (164.91)	675.8 (240.35)	**668.7 (205.90)**
6MWD (m) – mean (SD)	407.1 (107.02)	408.6 (75.11)	**407.9 (91.54)**
NT-proBNP (ng/L) – mean (SD)	645.6 (1158.75)	611.0 (714.58)	628.3 (956.83)

Heavily pre-treated patient population

FC Imbalance in Drug & Pbo Arms

Mildest baseline PAH disease to see treatment effect*

Full Baseline Characteristics Available in Appendix

*As determined by baseline PVR & 6MWD, we believe that TORREY enrolled the most well-controlled PAH patient trial population to meet its primary efficacy endpoint.
6MWD = six-minute walk distance; CTD = connective tissue disease; FC = Functional Class; NT-proBNP = N-terminal pro B-type natriuretic peptide; PVR = pulmonary vascular resistance; WHO = World Health Organization; ITT = intention-to-treat; SD = standard deviation; Pbo = placebo.

TORREY Study Phase 2 Topline Results

- **Met Primary Endpoint:** Statistically significant reduction in PVR in heavily-treated study population
- **Consistent, favorable PVR benefit seen in all pre-specified sub-groups** in favor of seralutinib with **enhanced effects in patients with more severe disease** at baseline§

Overall Study Population		Functional Class III		REVEAL 2.0 Risk Score ≥ 6	
PVR	6MWD	PVR	6MWD	PVR	6MWD
-14%*	+6.5m	-21%*	+37.3m*	-23%*	+21.9m
p = 0.0310	p = 0.5972	p = 0.0427	p = 0.0476	p = 0.0134	p = 0.2482

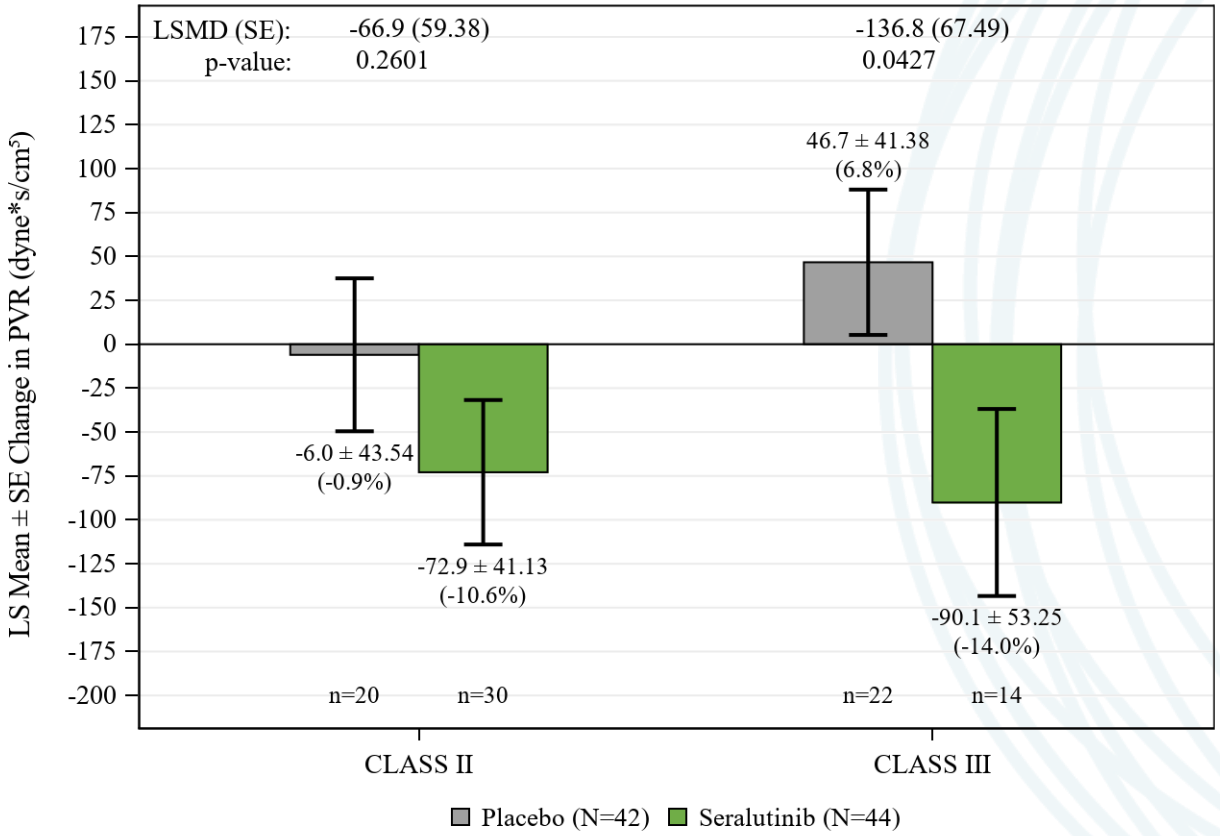
Primary Endpoint

- Consistently favorable results for hemodynamic and ECHO endpoints
- **Well tolerated**, avoiding side effect profile associated with systemic imatinib in PAH

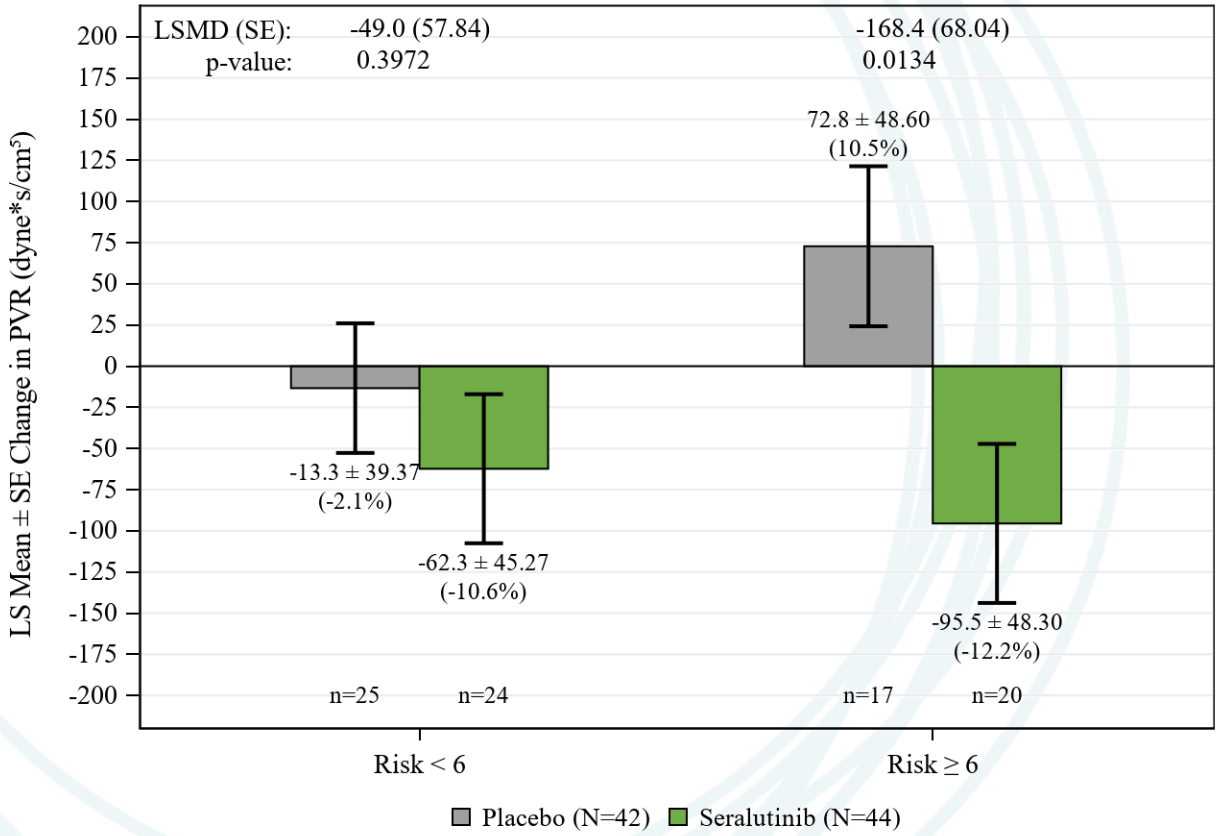
***** = p-value ≤ 0.05. All p-values in this presentation are nominal, aside from primary endpoint (Overall study population delta in PVR).
§ At baseline, as determined by Functional Class and REVEAL 2.0 Risk Score (pre-specified subgroups).

Seralutinib's Effect on PVR was More Pronounced in Patients with More Severe Disease at Baseline (ITT Population)

WHO Functional Class
Change in PVR, by Functional Class



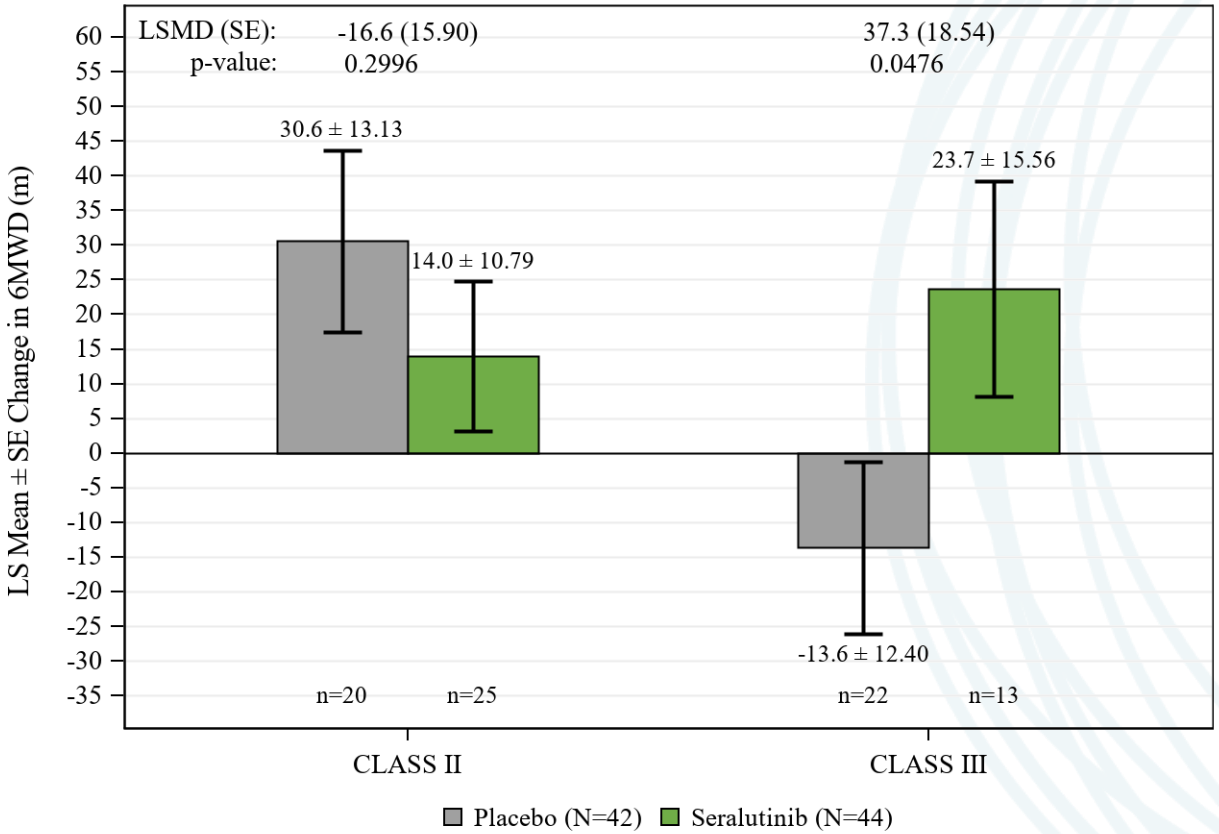
REVEAL 2.0 Risk Score
Change in PVR, by Risk Score



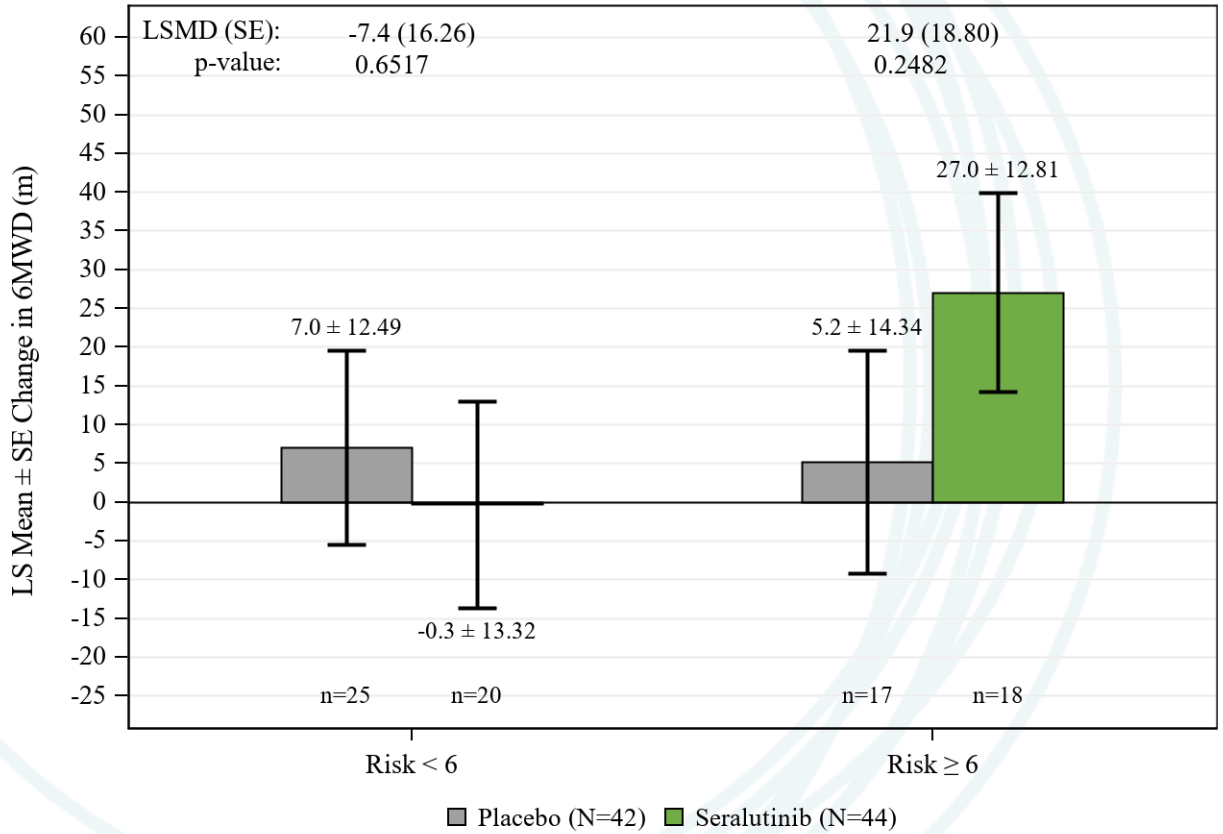
LS = least squares; LSMD = least squares mean difference; PVR = pulmonary vascular resistance; WHO = World Health Organization.
Based on ANCOVA modelling. Source: Data on file.

Change in 6MWD by Functional Class and REVEAL 2.0 Risk Score (ITT Population)

Functional Class
Change in 6MWD, by Functional Class

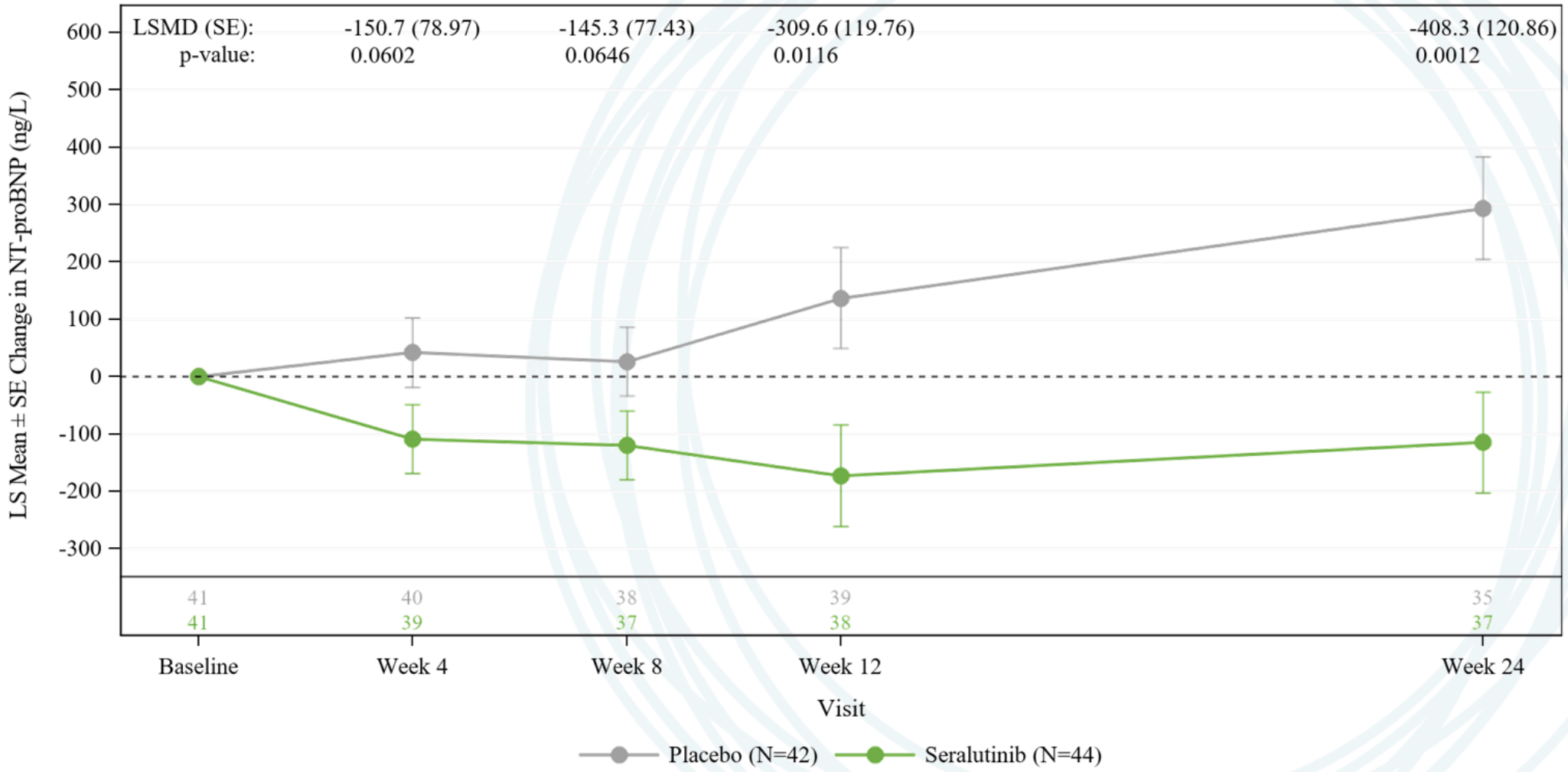


REVEAL 2.0 Risk Score
Change in 6MWD, by Risk Score



6MWD = six-minute walk distance; FC = Functional Class; LS = least squares; LSMD = least squares mean difference; MMRM = mixed-effects model with repeated measures; WHO = World Health Organization.
Based on MMRM modelling. Source: Data on file.

Seralutinib Treatment Led to Statistically Significant Reduction in NT-proBNP (ITT Population)



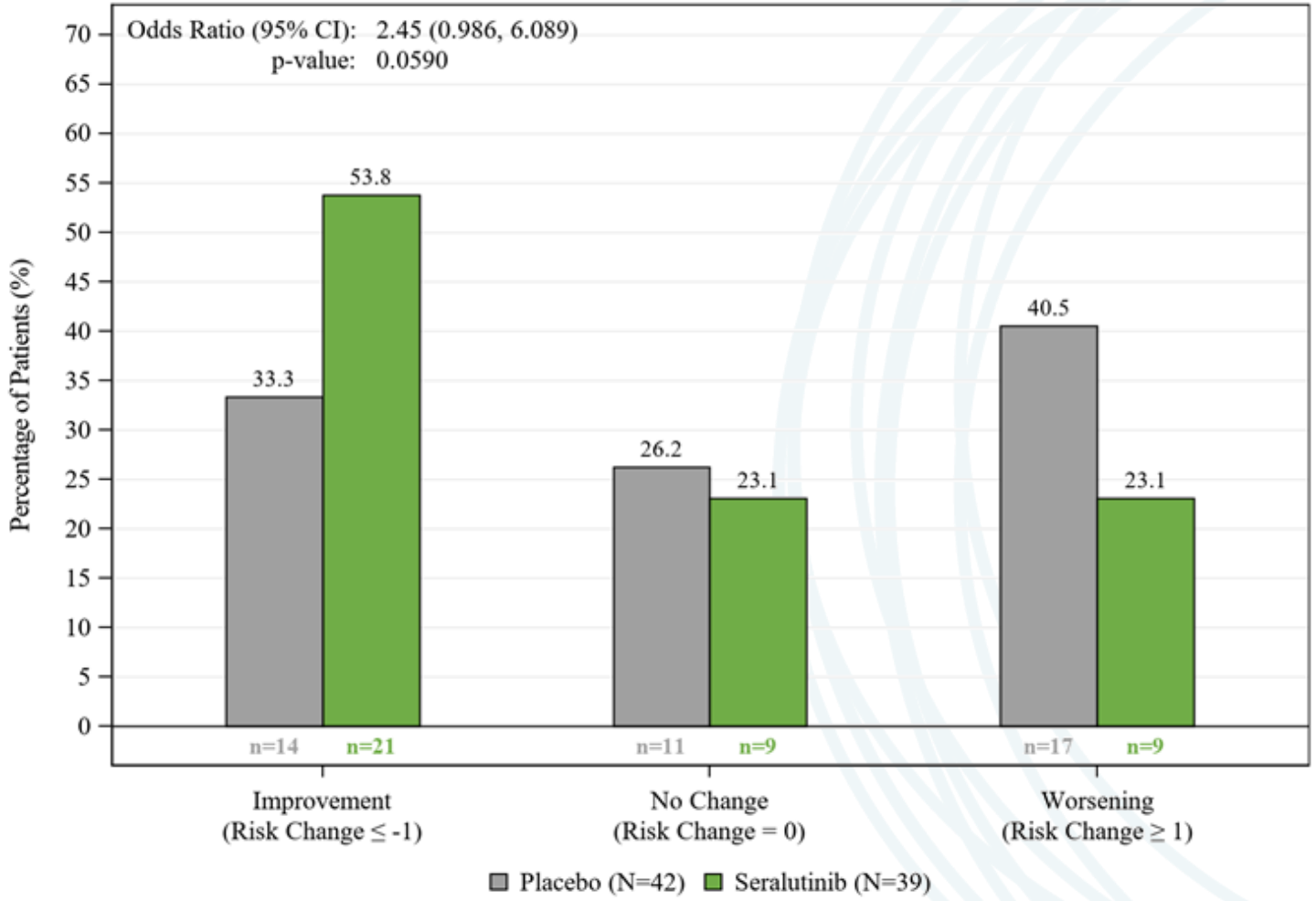
FC = functional class; LS = least squares; LSMD = least squares mean difference; MMRM = mixed-effects model with repeated measures; NT-proBNP = N-terminal pro B-type natriuretic peptide.
Based on a MMRM model. Source: Data on file.

Centrally-Read RHC and ECHO Results at Week 24 Consistently Favored Seralutinib (ANCOVA – Observed Cases)

Endpoint	LS Mean Difference (95% CI)	Statistically Significant Result Favoring Seralutinib (p ≤ 0.05)	Point Estimate Favoring Seralutinib	p-value
Right Atrium Area (cm^2)	**-1.99 (-3.783, -0.206)**	✓	✓	**0.0293***
RV Free Wall Strain (%)	**-2.64 (-5.172, -0.098)**	✓	✓	**0.0420***
PA Compliance (mL/mmHg)	**0.22 (0.009, 0.423)**	✓	✓	**0.0410***
RV Systolic Pressure (mmHg)	-8.10 (-13.877, -2.317)	✓	✓	0.0067*
PA Systolic Pressure (mmHg)	-6.98 (-12.774, -1.187)	✓	✓	0.0189*
PA Diastolic Pressure (mmHg)	-3.43 (-6.211, -0.643)	✓	✓	0.0165*
RV Fractional Area Change	2.62 (-1.405, 6.652)		✓	0.1983
PVR index (dyne*s/cm^5/m^2)	-160.42 (-333.970, 13.138)		✓	0.0695
mRAP (mmHg)	-0.99 (-2.350, 0.367)		✓	0.1503
Stroke Volume Index (mL/m^2)	2.19 (-0.917, 5.299)		✓	0.1644
Cardiac Index (L/min/m^2)	0.13 (-0.100, 0.359)		✓	0.2658

* p ≤ 0.05.
mRAP = mean right atrial pressure; PA = pulmonary artery; PVR = pulmonary vascular resistance; RV = right ventricle; LS = least squares; RHC = right heart catheterization; ECHO = echocardiography.
Source: Data on file.

The Majority of Patients Receiving Seralutinib Demonstrated an Improvement in REVEAL 2.0 Risk Score at Week 24



1-point improvement in REVEAL 2.0 Risk Score at baseline associated with[1]:

- **23% reduction in relative risk of death**
- **20% reduction in relative risk of clinical worsening**

Seralutinib patients have 2.45 times the odds of achieving a REVEAL 2.0 Risk Score improvement compared to placebo patients

30 of 39 seralutinib patients improved or maintained baseline REVEAL 2.0 Risk Score

Post hoc analysis. Odds ratio, 95% CI, and p-value from a stratified Cochran-Mantel-Haenszel chi-square test of improvement (yes vs. no).
1) A 1-point improvement in REVEAL 2.0 Risk Score (RRS) at PATENT-1 baseline was associated with a 23% reduction in the relative risk of death and a 20% reduction in the relative risk of clinical worsening in PATENT-2. Similarly, a 1-point improvement in RRS 2.0 at PATENT-1 Week 12 was associated with a 26% reduction in the relative risk of death and a 23% reduction in the relative risk of clinical worsening in PATENT-2. Source: https://doi.org/10.1016/j.ijcard.2021.03.034
Source: Data on file.

Top AEs From Imatinib IMPRES Study Not Observed at High Incidence in TORREY

Preferred Term [a]	IMPRES Study (Phase 3) Imatinib		TORREY Study (Phase 2) Seralutinib	
	Placebo (N=98)	Imatinib (N=103)	Placebo (N=42)	Seralutinib (N=44)
Nausea	23 (24)	57 (55)	6 (14)	5 (11)
Peripheral edema [b]	20 (20)	45 (44)	1 (2)	2 (5)
Diarrhea	19 (19)	36 (35)	3 (7)	6 (14)
Vomiting	10 (10)	31 (30)	3 (7)	2 (5)
Periorbital edema [c]	7 (7)	30 (29)	0 (0)	1 (2)
Dyspnea	13 (13)	19 (18)	5 (12)	4 (9)
Hypokalemia	3 (3)	16 (16)	1 (2)	2 (5)
Anemia	3 (3)	14 (14)	0 (0)	1 (2)
Face edema [d]	1 (1)	10 (10)	0 (0)	1 (2)
Muscle spasms	2 (2)	10 (10)	0 (0)	1 (2)

AE = adverse event; MedDRA = Medical Dictionary for Regulatory Activities; PT = preferred term.
Note: AEs in IMPRES with an incidence ≥ 10% in Imatinib and ≥5% higher in Imatinib than Placebo are summarized for both IMPRES and TORREY.
Note: The above tables are for illustrative purposes only and are not a head-to-head comparison. Differences exist between study designs and methodologies, and caution should be exercised when comparing data across studies.
[a] Coded using MedDRA (v 24.0 in TORREY).
[b] Includes AE PTs of oedema, oedema peripheral, and peripheral swelling in TORREY.
[c] Includes AE PT of periorbital edema in IMPRES and AE PT of periorbital swelling in TORREY.
[d] Includes AE PT of face edema in IMPRES and AE PT of swelling face in TORREY.
Source: Data on file.

Incidence of TEAEs by Preferred Term: ≥ 5% in Seralutinib (Safety Population)

Preferred Term[a]	Placebo (N=42)	Seralutinib (N=44)
Number of subjects with a TEAE	36 (85.7)	41 (93.2)
Cough	16 (38.1)	19 (43.2)
COVID-19	7 (16.7)	6 (13.6)
Diarrhea	3 (7.1)	6 (13.6)
Headache	8 (19.0)	6 (13.6)
Dizziness	2 (4.8)	5 (11.4)
Fatigue	3 (7.1)	5 (11.4)
Nausea	6 (14.3)	5 (11.4)
Dyspnea	5 (11.9)	4 (9.1)
Nightmare	1 (2.4)	4 (9.1)
Abdominal pain lower	0	3 (6.8)
Arthralgia	1 (2.4)	3 (6.8)
Back pain	2 (4.8)	3 (6.8)
Chest discomfort	1 (2.4)	3 (6.8)
Nasal congestion	1 (2.4)	3 (6.8)
Nasopharyngitis	0	3 (6.8)
Rash	1 (2.4)	3 (6.8)
Throat irritation	0	3 (6.8)

All TEAEs in the table above were mild or moderate in severity.

MedDRA = Medical Dictionary for Regulatory Activities; TEAE = treatment-emergent adverse event.
[a] Coded using MedDRA v 24.0
Source: Data on file.

Seralutinib's Next Frontier: What is PH-ILD?

- WHO Group 3 PH is PH due to lung diseases and / or hypoxia
  - PH due to interstitial lung disease (PH-ILD) is a subgroup of Group 3 PH
  - PH-ILD includes PH related to idiopathic pulmonary fibrosis (IPF) and PH related connective tissue disease-associated interstitial lung disease (CTD-ILD)
- Characterized by pulmonary vascular pathology associated with PH, in addition to thickening and scarring of the lung interstitium resulting from ILD
- Only Tyvaso is approved for PH-ILD, and only in the US
- Patients have poor disease prognosis – increased mortality rate as compared to PAH patients

~60-100K PH-ILD patients in the US(1)

One approved therapy (US only)

Callpoint overlap with PAH

1) Based internal company estimates. Prevalence estimates of PH-ILD indicate the patient population is likely to be 1-2 times that of PAH.

Seralutinib Could Address the Pathophysiologic Mechanisms Underlying Group 3 Pulmonary Hypertension

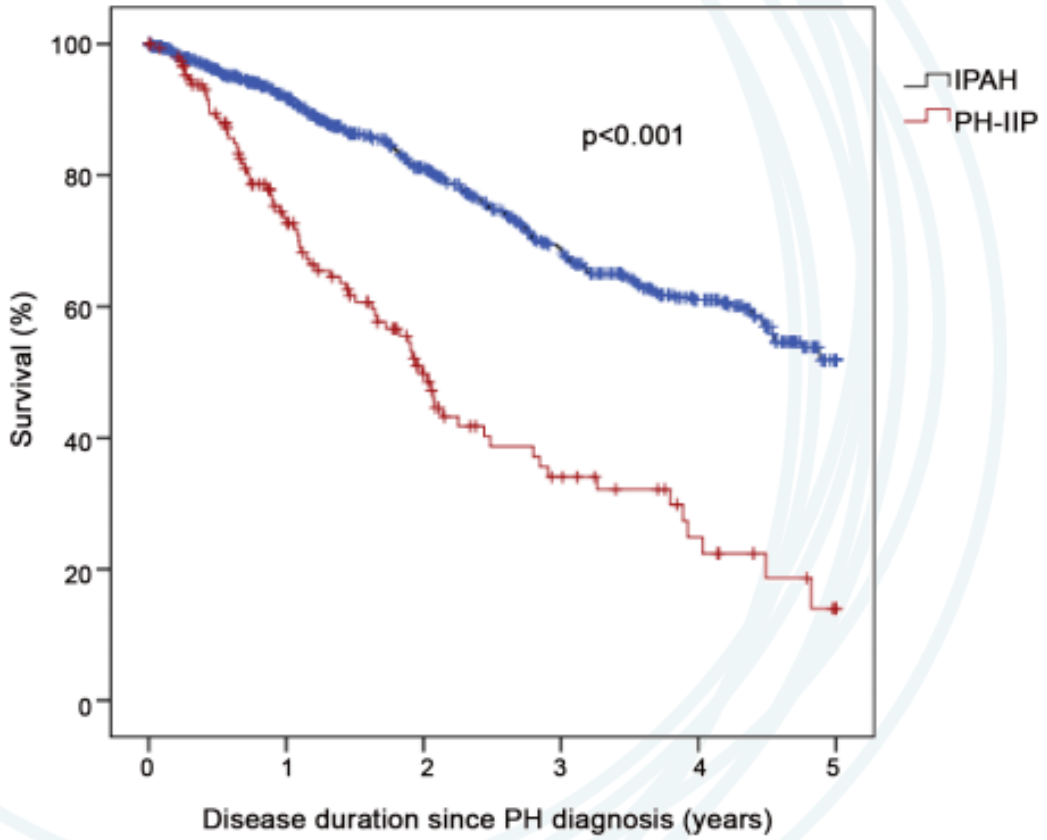
Disease Process	Cell Type / Mechanism	Potential Relevant Pathway
Vascular Inflammation	Macrophages and ECs	• CSF1R • KIT
Vascular fibrosis	Fibroblasts / myofibroblasts	• PDGFR
Pulmonary vasculopathy (plexiform lesions)	Endothelial-to-mesenchymal transition	• PDGFR
Pulmonary arteriolar hypertrophy / hyperplasia	Pulmonary arteriole vascular smooth muscle cells	• PDGFR • BMPR2
Parenchymal interstitial lung inflammation and fibrosis	Fibroblasts	• PDGFR • CSF1R
	Epithelial-to-mesenchymal transition	• PDGFR
Shunt/hypoxia	V/Q mismatch	• Multiple

Source: Dotan, et al., BMC Open Res 2020; Yang, et al., Cell 2006; Song, et al., Cell Signal 2016; Wynn, J Pathol 2008; Tsutsumi, et al., PLoS One 2019.

Given a Lack of Approved Treatments, Disease Prognosis is Poor, Even Relative to PAH

- Compared to ILD without PH or PH associated with other causes, development of PH-ILD is associated with:[1]
  - Increased need for supplemental oxygen
  - Reduced mobility (more FC IV symptoms and lower 6MWD)
  - Decreased survival
- Recent cohort analysis of PH patients (2002 – 2019) indicated that PH due to lung disease has a **3-fold increase in mortality compared to PAH**[3]

Kaplan-Meier survival estimates in patients with PH-IIP and patients with IPAH (COMPERA)[4]



IPF = Idiopathic pulmonary fibrosis, SSc = systemic sclerosis; CPFE = sarcoidosis combined pulmonary fibrosis and emphysema syndrome, PLCH = pulmonary Langerhans cell histiocytosis; LAM = lymphangioleiomyomatosis; PH-IIP = pulmonary hypertension associated with chronic fibrosing idiopathic interstitial pneumonias.
Source: 1. Panagiotou, et al., Eur Res Rev 2017; 2. King and Shlobin, Chest 2020; 3. Fauvel, et al., Arch Cardiovas Dis 2020; 4. Hoeper, et al., PLoS One 2015.

Seralutinib Utilizes Convenient Dry Powder Inhaler

GB5121 & GB7208

Covalent, CNS-Penetrant BTK Inhibitors

Primary CNS Lymphoma (PCNSL) and Multiple Sclerosis (MS)

GB5121 & GB7208: CNS-Penetrant, BTK Inhibitors

Product Candidates Description

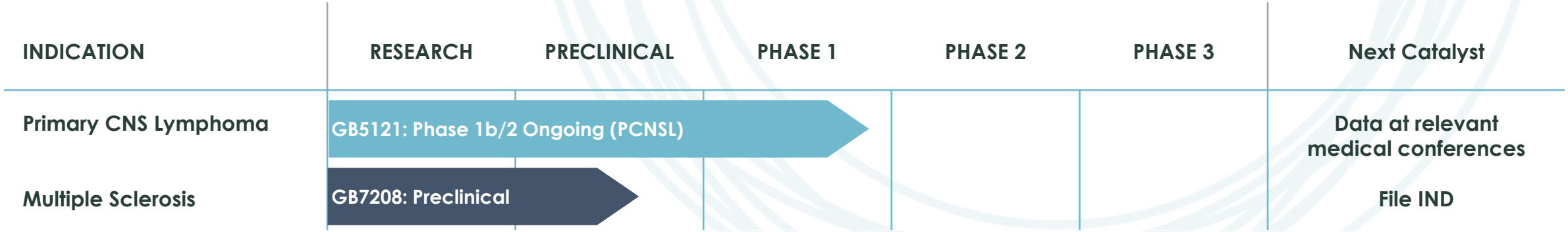
- 2 oral, small molecule, CNS-penetrant, irreversible BTK Inhibitors optimized for CNS penetration and kinase selectivity
- Developed in-house with patent protection expected to extend into 2040s

GB5121: Lead Neuro-Oncology Candidate

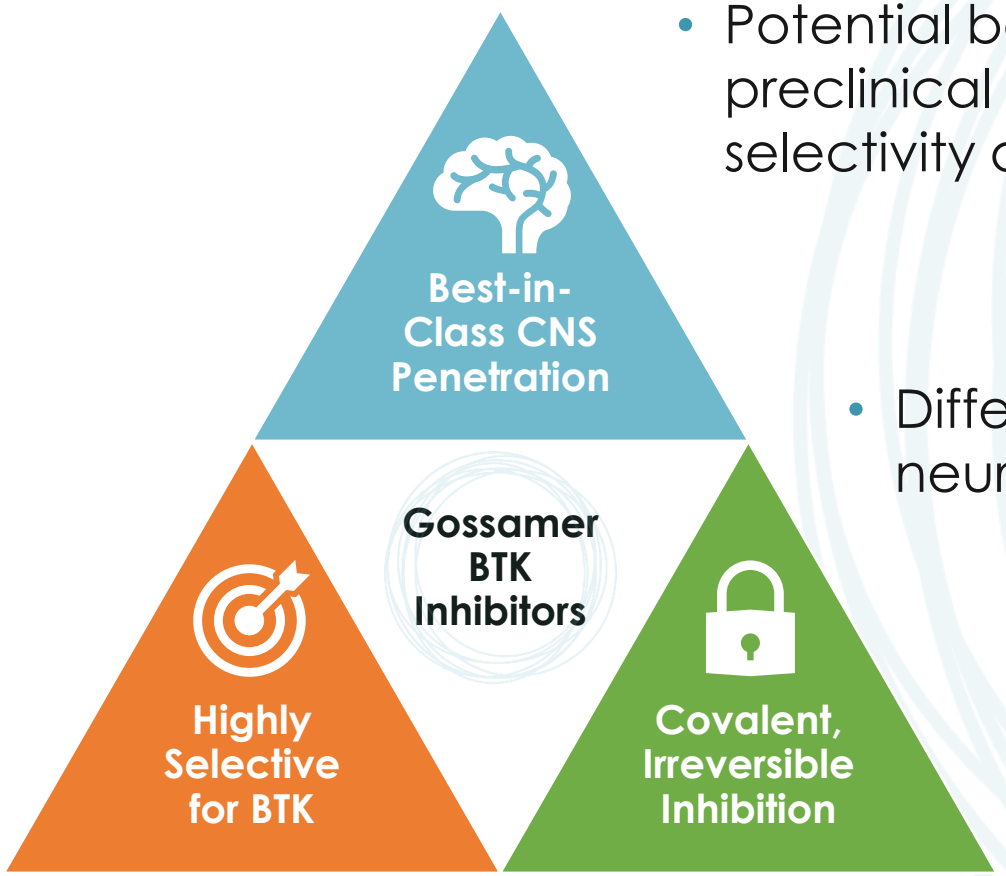
- Initial indication, relapsed / refractory primary CNS lymphoma (PCNSL) provides a potential opportunity for an accelerated path to market
- Advanced into first-in-human clinical trial in 4Q21

GB7208: Lead Neuro-inflammatory / Neuro-degenerative Candidate

- Superior CNS penetration / results in preclinical mouse models vs. tolebrutinib at studied doses

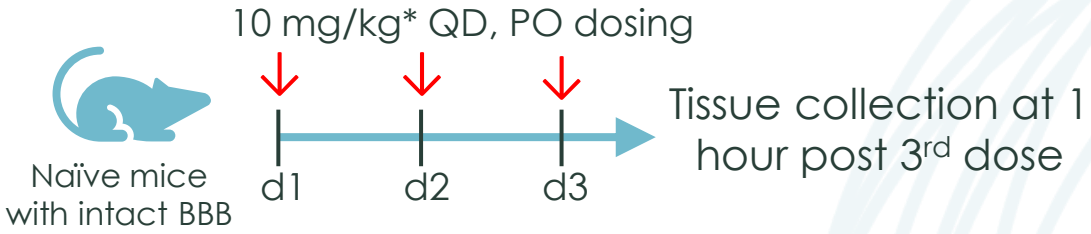


Gossamer's CNS-Penetrant BTK Inhibitors

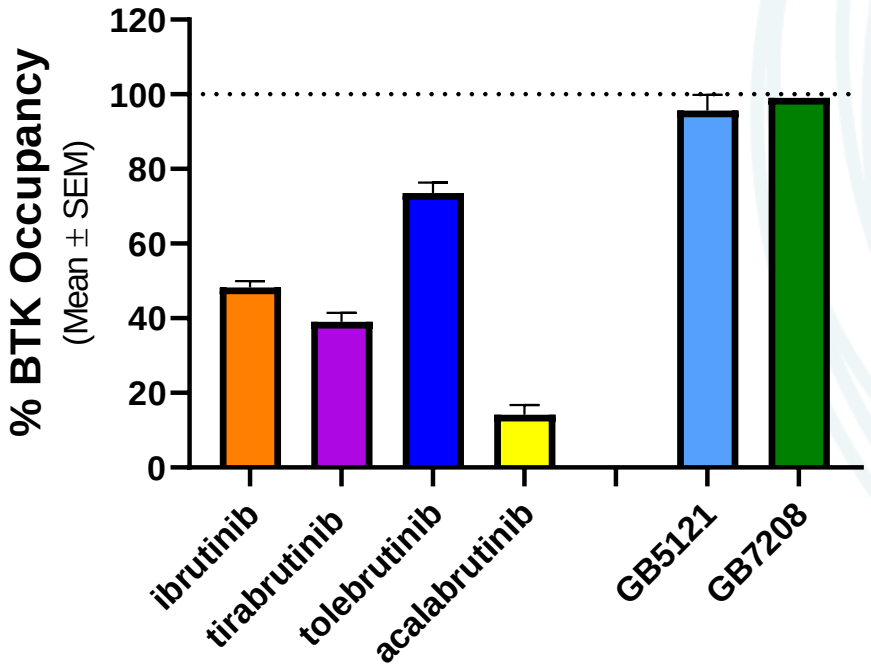


- Potential best-in-class preclinical CNS penetration based on preclinical mouse models, complemented by high degrees of selectivity and covalent binding profile
- Differentiated BTK inhibitors for neuro-oncology, neuroinflammatory, and neurodegenerative disorders
- Gossamer has significant clinical development expertise in both neuroinflammatory conditions and hematologic cancers

GB5121 and GB7208 Demonstrate Superior Brain Penetration in Preclinical Mouse Models



Brain Target Occupancy

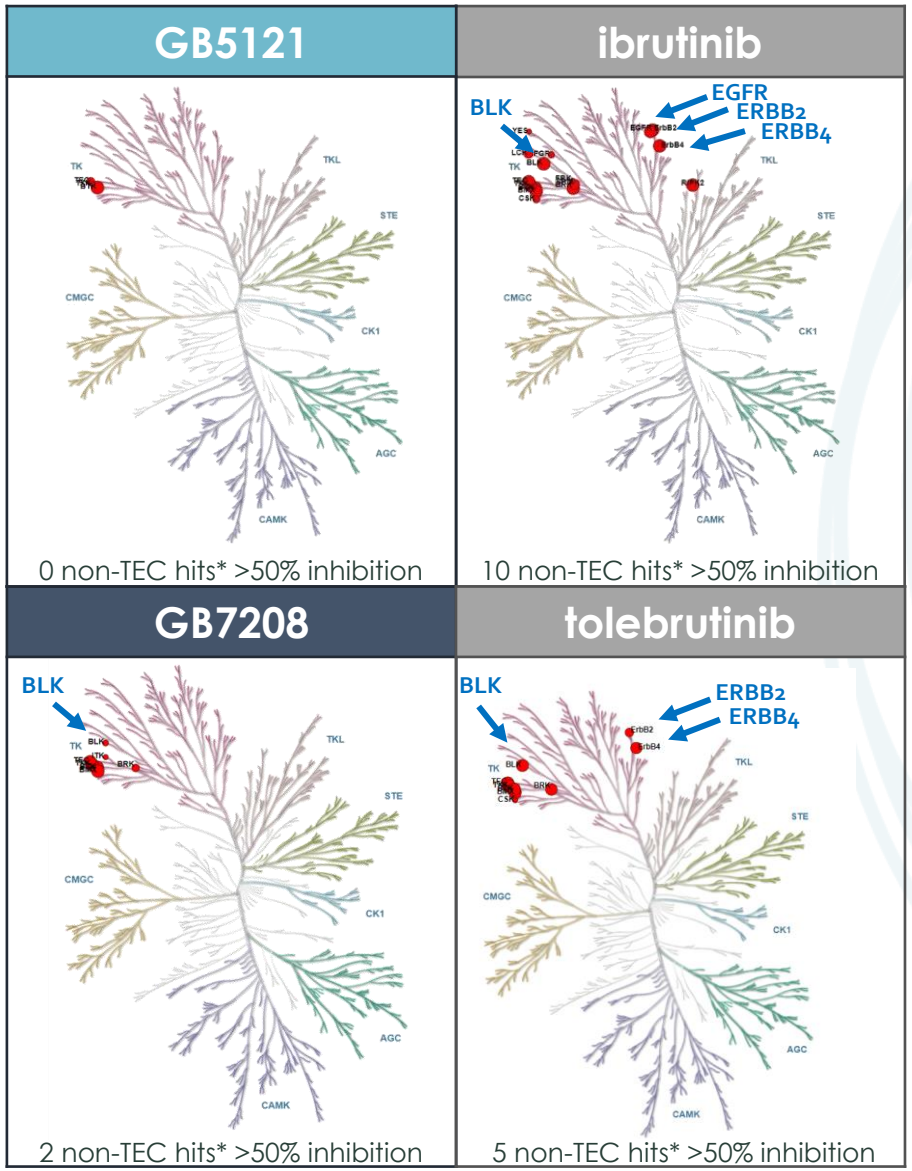


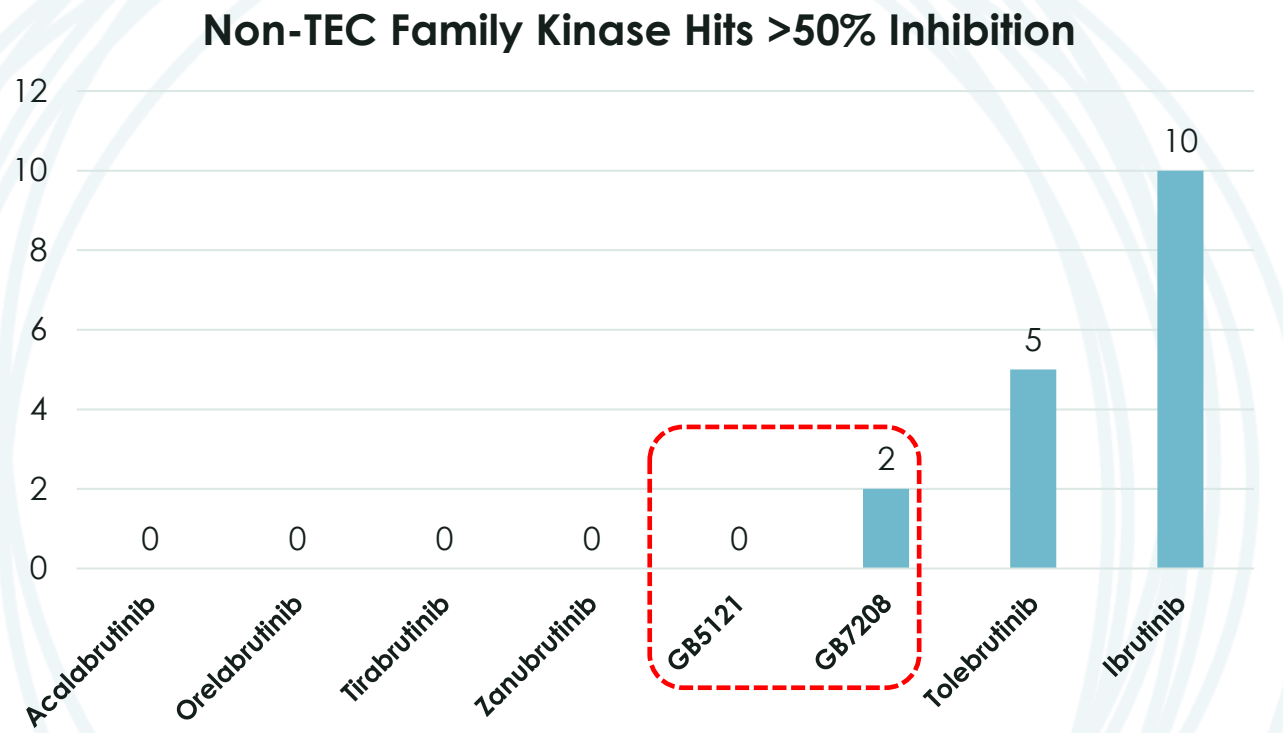
Compound	Company / Phase	Mouse Brain Target Occupancy
GB5121	Gossamer Bio / Phase 1b/2	
GB7208	Gossamer Bio / Preclinical	
Tolebrutinib	Sanofi (Principia) / Phase 3	
Ibrutinib	Abbvie & J&J / Approved	
Tirabrutinib	Ono Pharma / Phase 2 (US), Approved (Japan)	
Acalabrutinib	AstraZeneca / Approved	

Based on internally generated data in naïve mice with intact BBB.

*10 mg/kg = comparable to tolebrutinib clinical dose of 60mg QD in MS (based on allometric scaling).
QD = once-daily; PO = oral administration; BBB = blood brain barrier; SEM = standard error of the mean.

GB5121 and GB7208 Are Highly Selective BTK Inhibitors Based on Kinome Scans





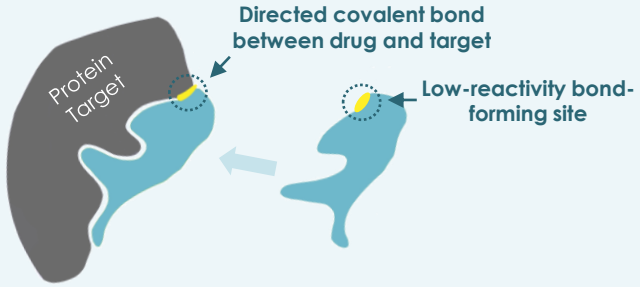
Kinome scans suggest GB5121 and GB7208 are highly selective compounds

* Non-TEC family kinases inhibited >50% at 1uM concentrations
Red denotes >50% inhibition, → denotes non-TEC covalent off-target interaction

Source: Internal data on hand.

Covalent Inhibitors Provide Advantages Over Reversible Inhibitors

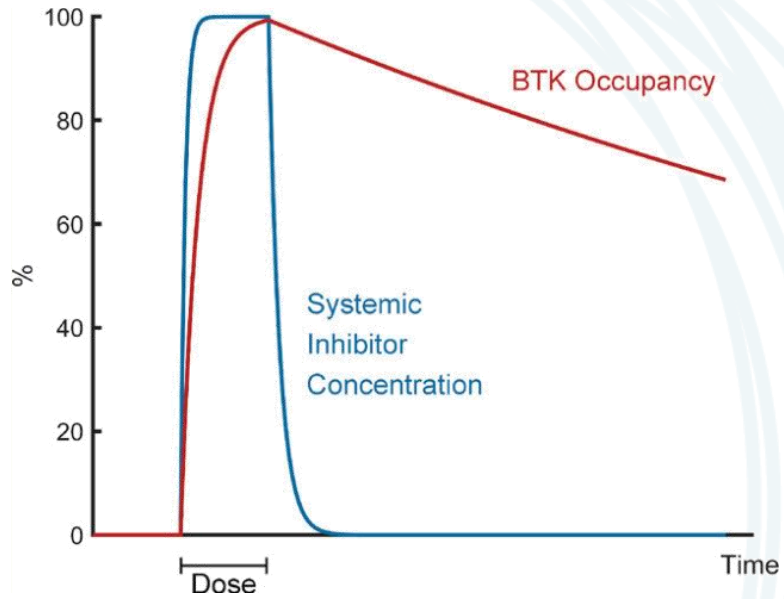
Covalent Inhibitors



Covalent irreversible drugs bind specifically to a drug target and form a precisely direct, permanent bond with their target

Reversible Inhibitors

Traditional reversible drugs are in equilibrium with their target continually binding, unbinding and rebinding



Rapid, irreversible binding to BTK, coupled with fast clearance, enables achievement of high BTK occupancy for extended periods of time with faster systemic clearance of the inhibitor.

Advantages:

- Enhanced Potency
- Selectivity
- Prolonged Duration of Action

Source: Singh, J. et al. Nat Rev Drug Discov 10, 307–317 (2011).

Primary CNS Lymphoma (PCNSL) Background

- ~1,500 new diagnosed patients / year in US[1]
- **Median OS, from diagnosis in US, is 26 months**[2]
  - ~6 months in elderly, where >20% receive no treatment
- 1L SoC is polychemotherapy on backbone of high-dose methotrexate (HD-MTX)
  - ~50% durable remission, associated with significant late neurotoxicity
- **Prognosis remains poor: no approved R/R treatment**
  - Median recurrence at 10 – 18 months[3]
  - Median OS for R/R is 2 months without treatment[3]

1) Grommes, C et al. *J Clin Oncol*. 2017 Jul 20;35(21):2410-2418
2) Mendez JS, et al. *Neuro-Oncology*. 2018;20(5):687-694
3) Houillier C, et al. *Neurology*. 2020;94:e1027-e0139
OS = overall survival; 1L = first line; SoC = standard of care; R/R = relapsed / refractory.

Why R/R PCNSL for Initial Indication for GB5121?

Potentially The Right Molecule for the Right Indication

✓**High unmet need:**

- 1) no approved R/R treatments
- 2) median OS only 2 months without treatment

✓**BTKs show promise, but limited CNS exposure and safety / tolerability profile lead to disappointing results**

- Ibrutinib has ability to achieve responses with higher than labeled doses
- Safety / tolerability issues often result in treatment cessation and short DoR
- GB5121's brain penetration and selectivity potentially primed to address challenges

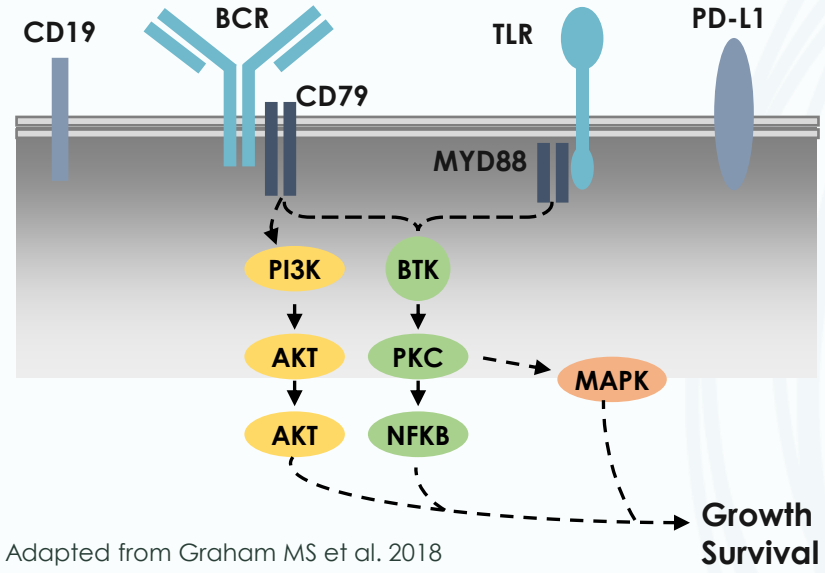
✓**Ability to move fast**

- Rapid proof-of-concept
- Potential for accelerated path to approval

R/R = relapsed / refractory; OS = overall survival; DoR = duration of response.

Rationale for BTK Inhibition in PCNSL

BTK Inhibition Targets a Key Survival Node in PCNSL

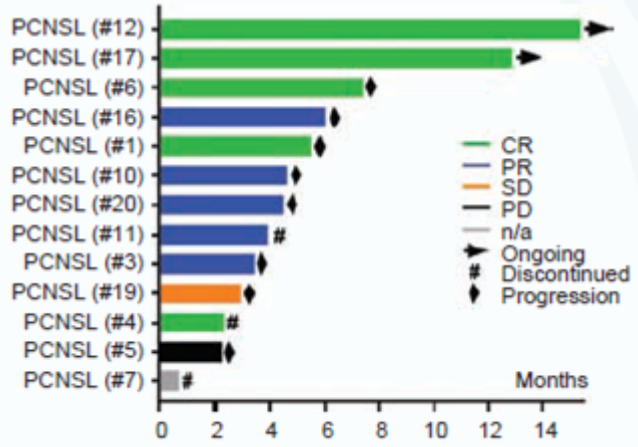


Adapted from Graham MS et al. 2018

- PCNSL is an aggressive non-Hodgkin lymphoma restricted to the CNS without evidence of systemic spread
- Most PCNSLs are ABC-DLBCLs that carry the MyD88 driver mutations

BTKi Efficacious in PCNSL Patients

ibrutinib 77% ORR

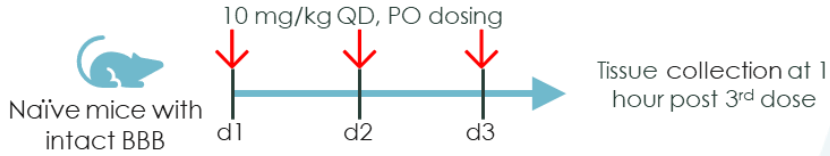


ibrutinib (Grommes 2017)

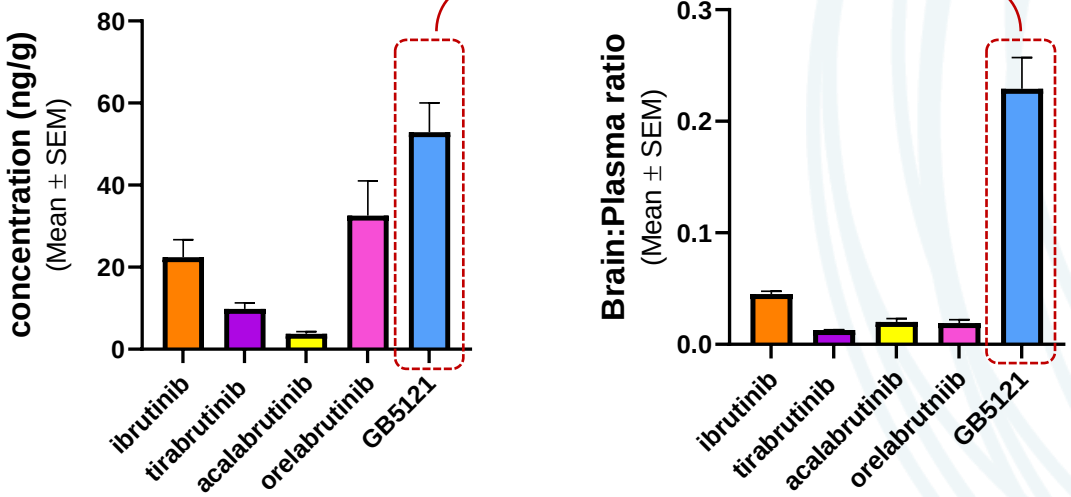
- Limited CNS-penetrance of ibrutinib necessitates use of very high doses, resulting in a poor safety profile
- Duration of response of ibrutinib is limited, which has been hypothesized to be related to insufficient CNS target coverage, leading to secondary escape mutations

Sources: Graham MS, Deangelis LM, Best Prac Res Clin Haematol, 2018 31(3), 262-269; Grommes C. et al. Cancer Discov. 2017 Sep 7(9):1018-1029.

GB5121 Demonstrates Superior Brain Penetrance vs. Selected BTK Inhibitors Developed in Oncology in Preclinical Mouse Model



GB5121 achieves higher CNS penetrance with lower plasma exposures



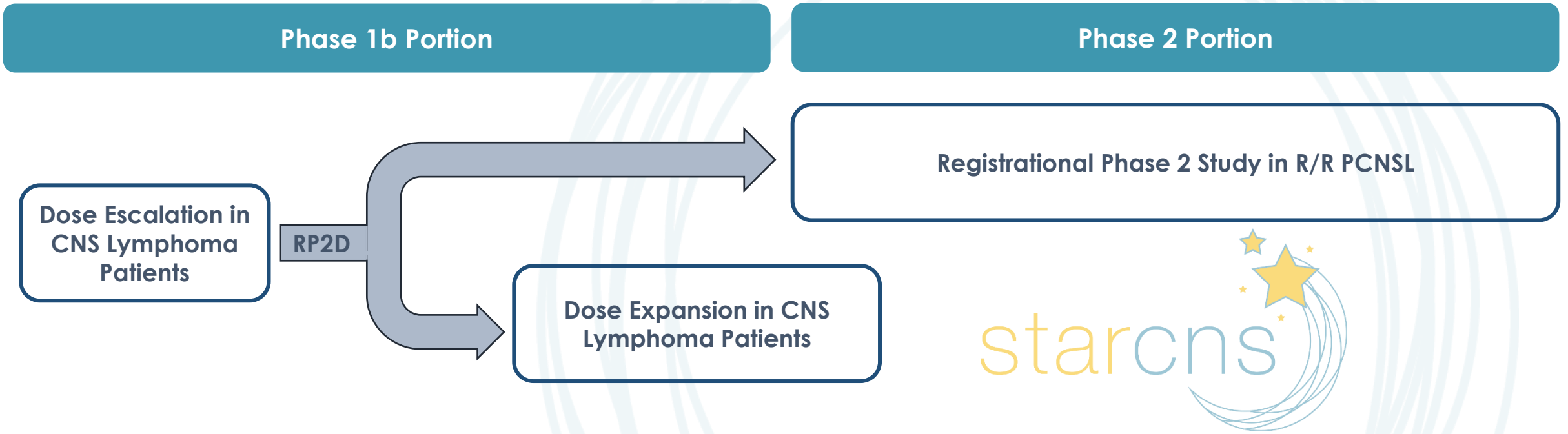
Brain Concentration

Brain : Plasma Ratio

- Optimized for CNS penetrance and selectivity, GB5121 achieves robust drug levels and BTK occupancy in brain supporting its use in PCNSL patients
- GB5121 shows potent activity *in vitro* in DLBCL cell lines regardless of phenotype and mutational profile
- Development of in vivo PCNSL models underway with top academic collaborators

Source: Internal data on hand.
QD = once-daily; PO = oral administration; BBB = blood brain barrier; SEM = standard error of the mean; DLBCL = diffuse large B cell lymphoma.

GB5121 STAR CNS Phase 1b/2 Study, Providing Potential Path to Registration

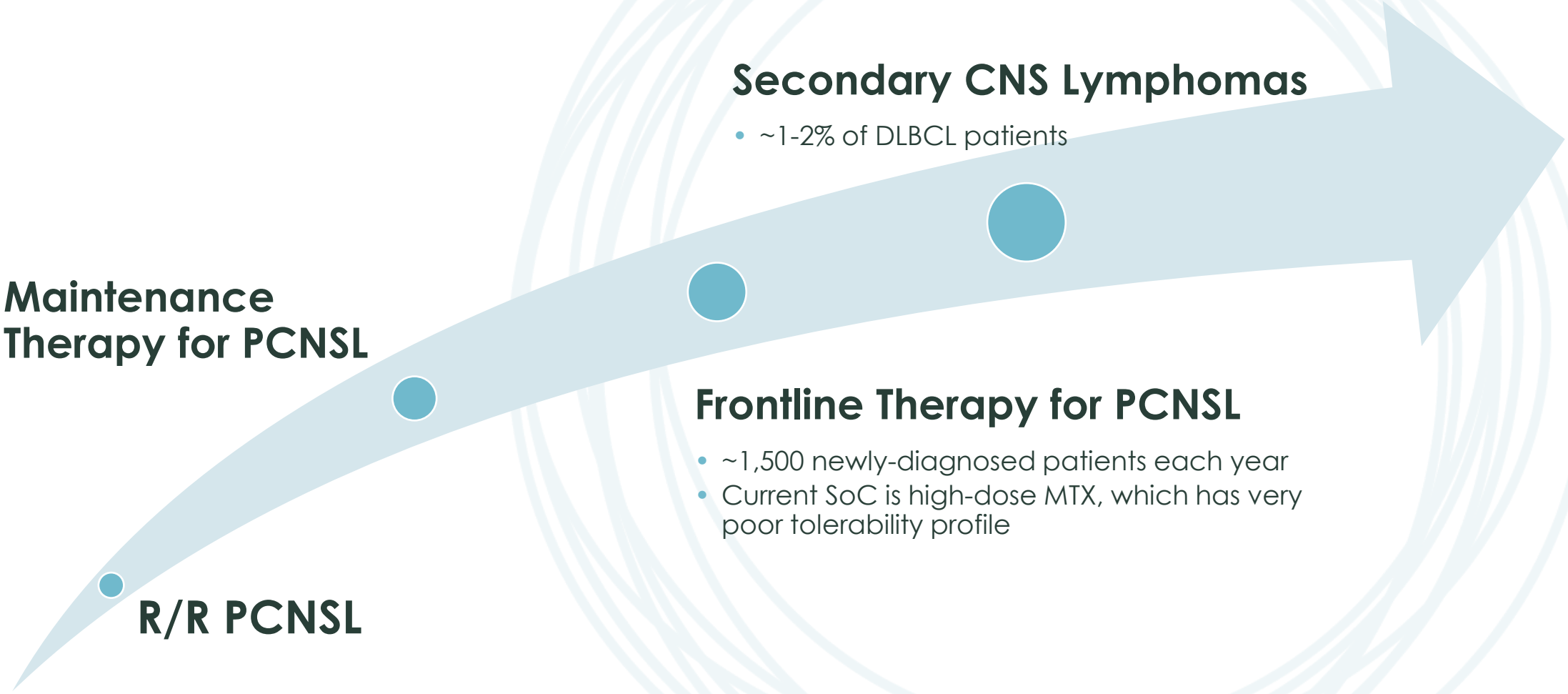


Patient Population	R/R primary and secondary CNS lymphoma patients, R/R primary vitreoretinal lymphoma
Endpoints	**Primary:** Safety, tolerability, recommended Phase 2 dose **Secondary:** ORR, Duration of Response

Patient Population	R/R primary CNS lymphoma patients, R/R primary vitreoretinal lymphoma
Endpoints	**Primary:** ORR **Secondary:** Duration of Response, OS, PFS, Safety, Tolerability

ORR = Overall Response Rate; OS = Overall Survival; PFS = Progression Free Survival; R/R = relapsed / refractory; RP2D = recommended Phase 2 dose.

Opportunities to Expand Beyond R/R PCNSL



R/R = relapsed / refractory; PCNSL = primary central nervous system lymphoma; DLBCL = diffuse large B cell lymphoma; SoC = standard of care; MTX = methotrexate.

Corporate Overview and Milestones

Financial Overview

Cash, Cash Equivalents and Marketable Securities (As of 9/30/22)	~$304mm
Debt, *Related to Line of Credit* (As of 9/30/22; initial tranche of credit facility, announced 5/2/19)	~$27mm
Principal of Convertible Notes Outstanding (As of 9/30/22)	~$200mm
Common Shares Outstanding (As of 10/31/22)	~94mm

mm = millions.

Upcoming Seralutinib Clinical Milestones

- 1H:23 – Complete End of Phase 2 Regulatory Interactions
- Mid 2023 – TORREY Study Open Label Extension Data
- 2H:23 – Commence Global Registrational Phase 3 Program in PAH
- 2H:23-1H:24 – Commence Development Program in WHO Group 3 PH

Appendix

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TORREY Phase 2 - Baseline Demographics (ITT Population)

Characteristic	Placebo (N=42)	Seralutinib (N=44)	Total (N=86)
Age (years) – mean (SD)	49.5 (11.81)	48.3 (12.70)	48.8 (12.22)
Sex – n (%)			
Female	38 (90.5)	40 (90.9)	78 (90.7)
Male	4 (9.5)	4 (9.1)	8 (9.3)
Race – n (%)			
White	37 (88.1)	37 (84.1)	74 (86.0)
Black or African American	1 (2.4)	0	1 (1.2)
Asian	2 (4.8)	4 (9.1)	6 (7.0)
Other	2 (4.8)	3 (6.8)	5 (5.8)
Ethnicity – n (%)			
Hispanic or Latino	6 (14.3)	8 (18.2)	14 (16.3)
Not Hispanic or Latino	34 (81.0)	36 (81.8)	70 (81.4)
Not reported	2 (4.8)	0	2 (2.3)
Region – n (%)			
North America	30 (71.4)	29 (65.9)	59 (68.6)
Western Europe	10 (23.8)	11 (25.0)	21 (24.4)
Asia Pacific	1 (2.4)	4 (9.1)	5 (5.8)
Eastern Europe	1 (2.4)	0	1 (1.2)

ITT = Intention-to-treat; SD = standard deviation.

TORREY Phase 2 - Baseline Background PAH Medication Use(ITT Population)

Characteristic	Placebo (N=42)	Seralutinib (N=44)	Total (N=86)
Number of background therapies – n (%)			
1	2 (4.8)	1 (2.3)	3 (3.5)
2	16 (38.1)	18 (40.9)	34 (39.5)
3	24 (57.1)	25 (56.8)	49 (57.0)
Prostacyclin/Prostacycin Receptor Agonist use – n (%)			
None	13 (31.0)	15 (34.1)	28 (32.6)
Monotherapy	1 (2.4)	1 (2.3)	2 (2.3)
Double therapy	4 (9.5)	3 (6.8)	7 (8.1)
Triple therapy	24 (57.1)	25 (56.8)	49 (57.0)
Parenteral Prostacyclin	19 (45.2)	19 (43.1)	38 (44.2)
Oral	10 (23.8)	10 (22.7)	20 (23.3)

ITT = Intention-to-treat.

TORREY Phase 2 - Baseline Disease Characteristics (ITT Population)

Characteristic	Placebo (N=42)	Seralutinib (N=44)	Total (N=86)
Age at PAH diagnosis (years) – mean (SD)	41.2 (11.65)	40.7 (15.84)	40.9 (13.87)
Years since PAH diagnosis – mean (SD)	8.78 (7.218)	8.07 (7.074)	8.41 (7.111)
PAH classification – n (%)			
Idiopathic	22 (52.4)	20 (45.5)	42 (48.8)
Heritable	5 (11.9)	10 (22.7)	15 (17.4)
Associated with:			
CTD	11 (26.2)	6 (13.6)	17 (19.8)
Anorexigen use	0	1 (2.3)	1 (1.2)
Methamphetamine use	4 (9.5)	4 (9.1)	8 (9.3)
Corrected congenital shunts	0	3 (6.8)	3 (3.5)
WHO FC – n (%)			
Class II	20 (47.6)	30 (68.2)	50 (58.1)
Class III	22 (52.4)	14 (31.8)	36 (41.9)
REVEAL 2.0 Risk Score ≥ 6 – n (%)	17 (40.5)	20 (45.5)	37 (43.0)
PVR (dyne*s/cm^5) – mean (SD)	661.3 (164.91)	675.8 (240.35)	668.7 (205.90)
6MWD (m) – mean (SD)	407.1 (107.02)	408.6 (75.11)	407.9 (91.54)
NT-proBNP (ng/L) – mean (SD)	645.6 (1158.75)	611.0 (714.58)	628.3 (956.83)

6MWD = six-minute walk distance; CTD = connective tissue disease; FC = functional class; NT-proBNP = N-terminal pro B-type natriuretic peptide; PAH = pulmonary arterial hypertension; PVR = pulmonary vascular resistance; WHO = World Health Organization; ITT = Intention-to-treat.

TORREY Phase 2 - Baseline Demographics and Disease Characteristics ***by Baseline WHO FC*** (ITT Population)

	Baseline WHO FC Class II			Baseline WHO FC Class III		
Characteristic	**Placebo (N=20)**	**Seralutinib (N=30)**	**Total (N=50)**	**Placebo (N=22)**	**Seralutinib (N=14)**	**Total (N=36)**
Age (years) – mean (SD)	47.6 (11.69)	47.7 (13.42)	47.7 (12.63)	51.1 (11.94)	49.4 (11.40)	50.4 (11.60)
Female – n (%)	19 (95.0)	27 (90.0)	46 (92.0)	19 (86.4)	13 (92.9)	32 (88.9)
Race, White – n (%)	19 (95.0)	24 (80.0)	43 (86.0)	18 (81.8)	13 (92.9)	31 (86.1)
Region, North America – n (%)	13 (65.0)	20 (66.7)	33 (66.0)	17 (77.3)	9 (64.3)	26 (72.2)
Years since PAH diagnosis – mean (SD)	9.60 (7.262)	8.40 (6.961)	8.88 (7.034)	8.02 (7.263)	7.36 (7.527)	7.76 (7.266)
PAH classification – n (%)						
Idiopathic	11 (55.0)	16 (53.3)	27 (54.0)	11 (50.0)	4 (28.6)	15 (41.7)
Heritable	4 (20.0)	6 (20.0)	10 (20.0)	1 (4.5)	4 (28.6)	5 (13.9)
Associated with CTD	5 (25.0)	5 (16.7)	10 (20.0)	6 (27.3)	1 (7.1)	7 (19.4)
REVEAL 2.0 Risk Score ≥ 6 – n (%)	**4 (20.0)**	**11 (36.7)**	**15 (30.0)**	**13 (59.1)**	**9 (64.3)**	**22 (61.1)**
PVR (dyne*s/cm^5) – mean (SD)	638.3 (161.85)	689.9 (265.72)	669.3 (229.34)	682.2 (168.62)	645.7 (179.29)	668.0 (171.25)
6MWD (m) – mean (SD)	**455.5 (63.96)**	**425.5 (62.98)**	**437.5 (64.45)**	**363.2 (120.05)**	**372.4 (87.97)**	**366.8 (107.43)**
NT-proBNP (ng/L) – mean (SD)	**406.8 (798.39)**	**609.9 (715.31)**	**525.3 (749.58)**	**873.0 (1403.06)**	**613.3 (742.17)**	**773.7 (1187.34)**
On 3 background therapies – n (%)	11 (55.0)	18 (60.0)	29 (58.0)	13 (59.1)	7 (50.0)	20 (55.6)
ERA + PDE-5i + Prostacyclins/PRA	8 (40.0)	16 (53.3)	24 (48.0)	10 (45.5)	6 (42.9)	16 (44.4)
ERA + sGC + Prostacyclins/PRA	3 (15.0)	2 (6.7)	5 (10.0)	3 (13.6)	1 (7.1)	4 (11.1)

ITT = Intention-to-treat; SD = standard deviation; CTD = connective tissue disease; PVR = pulmonary vascular resistance; 6MWD = 6-minute walk distance; NT-proBNP = N-terminal pro B-type natriuretic peptide; WHO = World Health Organization; FC = Functional Class.