

Completion of Phase 1 Clinical Trial and IND Approval of Phase 2a Clinical Trial for VTB-10, a First-in-Class Treatment for Pulmonary Arterial Hypertension

VASTHERA Co. Ltd.



CARDIOVASCULAR	Phase 1
Product Type	Small molecules
Indication	Pulmonary Arterial Hypertension (PAH)
Target	Peroxiredoxin 2 (PRX2)
MoA(Mechanism of Action)	VTB-10 is an enzyme mimetic (chemzyme) designed to replace the activity of inactivated or deficient peroxiredoxin. Through simultaneous and differential modulation of key RTK signaling pathways in vascular smooth muscle and endothelial cells, VTB-10 represents a novel therapeutic approach to restore pulmonary vascular function and improve outcomes in pulmonary arterial hypertension.
Competitiveness	Competitor : SOC, Activin Trap and TKI Therapies • PAH is a rare vascular disease driven by dysregulated TGF-β, PDGF, and VEGF signaling. Current standard of care includes vasodilator therapies targeting the endothelin, nitric oxide, and prostacyclin pathways. SOC treatments and TKIs mainly provide symptomatic and pathway-selective benefits with limited impact on vascular remodeling. In contrast, Sotatercept, an Activin Trap biologic targeting Activin/GDF-11 signaling, has shown disease-modifying benefit but requires subcutaneous administration and carries hematologic and vascular safety risks. • VTB-10, on the other hand, is an oral small-molecule treatment that dual-targets PDGF and VEGF signaling to restore endothelial function and reverse vascular remodeling in PAH.
Development Stage	Phase 1
Route of Administration	Oral

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