

Non-clinical development of novel target PRDX-based treatment for pulmonary arterial hypertension

VASTHERA Co. Ltd.



CARDIOVASCULAR

Preclinical

Product Type	Small-molecule compound (VTB-10)
Indication	Pulmonary Arterial Hypertension (PAH)
Target	Peroxiredoxin II (PRDX2)
MoA (Mechanism of Action)	VTB-10 is an enzyme mimetic (Nanozyme) that replaces the activity of inactivated or deficient peroxiredoxin (Enzyme replacement) and represents a novel therapeutic mechanism to restore symptoms and function of pulmonary arterial hypertension by simultaneously and oppositely modulating key RTK receptor signaling systems in vascular smooth muscle and endothelial cells.
Competitiveness	<p>Competitor : Sotatercept; MSD</p> <ul style="list-style-type: none"> - PAH is a rare vascular disease where three receptor signaling pathways, i.e. PDGF, VEGF, and TGF-β, are dysregulated. Sotatercept is a protein drug that targets TGF-β, family ligands (Activin/GDF-11) and retards the progression of late-stage PAH. - In contrast, VTB-10 is a small-molecule compound that doubly targets PDGF and VEGF and reverse the PAH.
Development Stage	IND-enabling study
Route of Administration	Oral