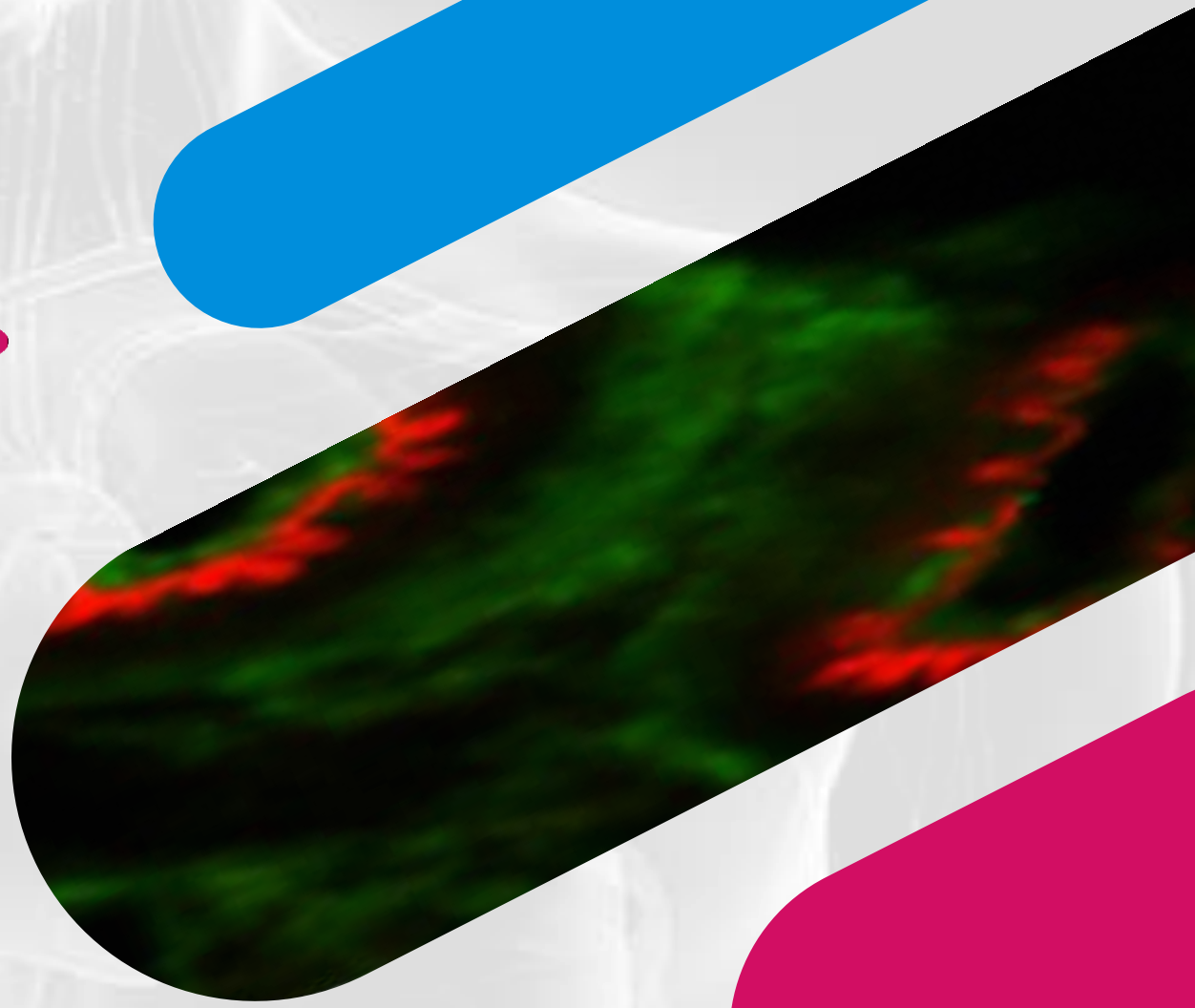
PHARMAZZ

EXCELLENCE IN CRITICAL CARE MEDICINE

Introduction

February 2025



Pharmazz, Inc. At A Glance

Pharmazz is a late-stage biopharmaceutical company that addresses the underserved critical care market. It has two first-in-class drug candidates in Phase 3 in the US, two drugs approved in India for marketing, and partnerships with major pharmaceutical companies.

Sovateltide, an endothelin-B agonist, is a first-in-class drug product for acute cerebral ischemic stroke.

- Approved Phase 3 IND and a SPA agreement with the FDA
- India Phase 3 data showing statistically significant improvement in neurological outcomes.
- Approved and marketed in India as Tyvalzi™ by our strategic partner, Sun Pharmaceuticals, with 60,000+ patients treated since the launch in September 2023

Centhaquine is a resuscitative agent without arterial constriction for hypovolemic shock

- US IND for Phase 3 approved for hypovolemic shock
- US IND for Phase 2 approved for Acute Respiratory Distress Syndrome (ARDS)
- Approved in India and marketed in India as Lyfaquin® by our strategic partner, Dr. Reddy's Laboratories
- Clinical trial results from India met all four primary endpoints in Phase 3 and showed a 75% reduction in 28-day mortality

Pharmazz, Inc. At A Glance

Business Highlights

Large and Growing Addressable Market Opportunity (5-year estimated CAGR from 2028E to 2033E).

- In the US, the treatment of ACIS is projected to generate $3.6bn of net revenues with a 5-year CAGR of 132% by 2033
- In the US, the treatment of Hypovolemic Shock is projected to generate $1.0bn of net revenues with a 5-year CAGR of 161% by 2033

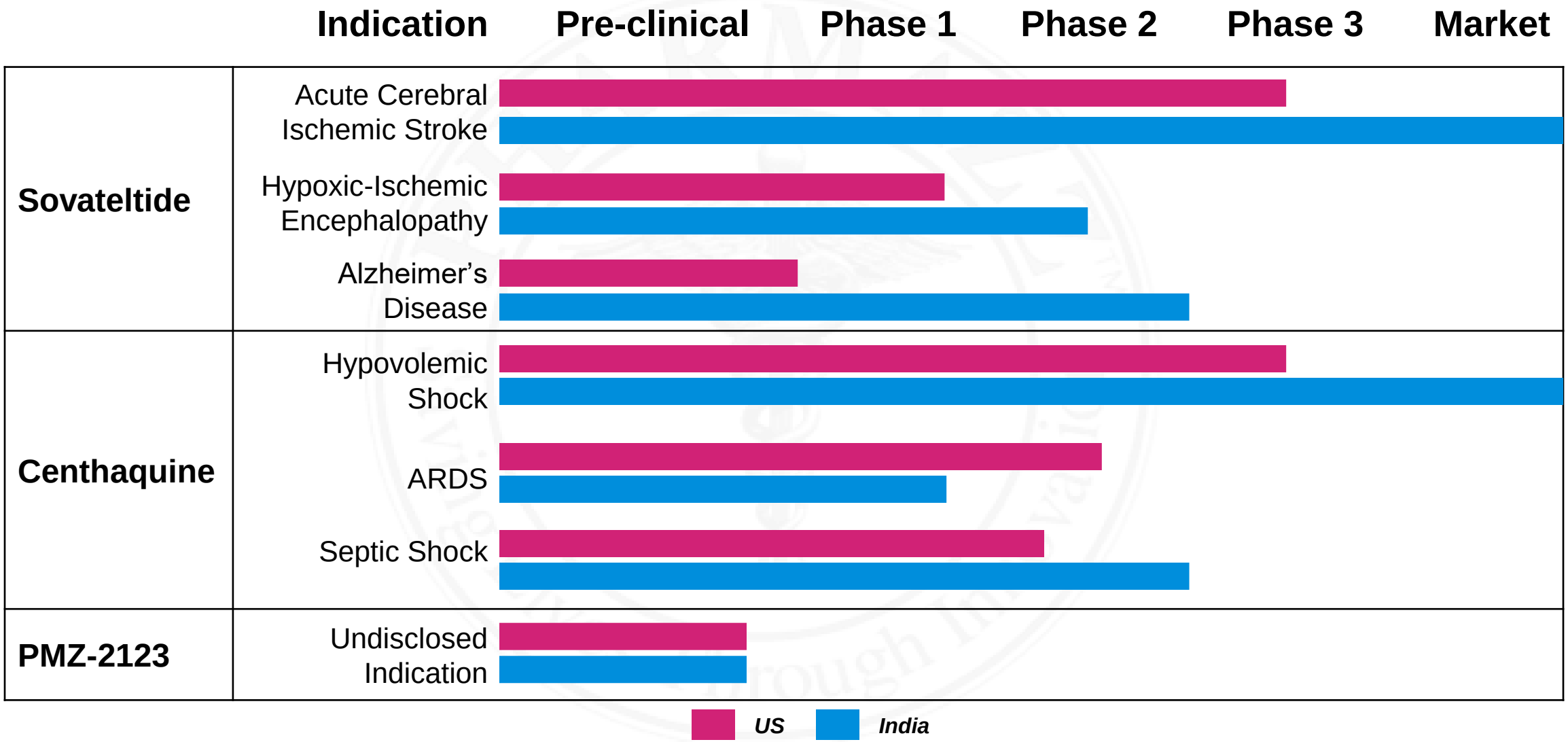
Experienced Management Team with a Proven Track Record:

- Chairman & CEO has 40+ years of drug discovery, development, clinical, and management experience
- President has 30+ years of clinical, industry, and business experience
- COO has 35+ years of industry experience with a track record of conducting and leading numerous successful in-house clinical trials

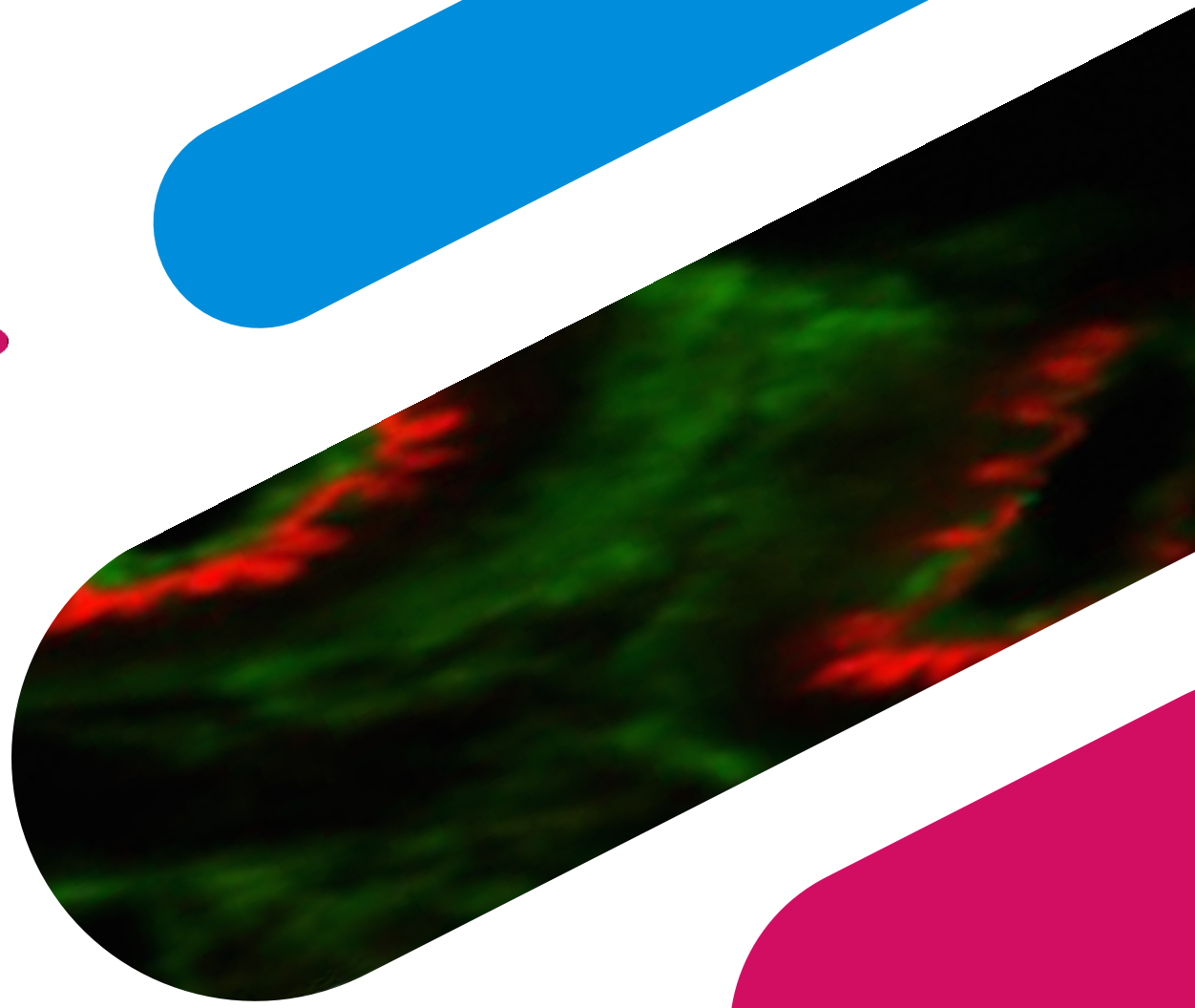
Clear Visibility on Critical Milestones (projected)

- Sovateltide Milestones: Full data (4*Q'26*), File NDA (1*Q'27*), NDA Approved (3*Q'27*), Launch (4*Q'27*)
- Centhaquine Milestones: Full data (2*Q'27*), File NDA (3*Q'27*), NDA Approved (1*Q'28*), Launch (2*Q'28*)
- Established market receptivity to drug candidates in the Indian Market supported by high-profile strategic partners

Product Pipeline



Centhaquine



A resuscitative agent that is free of arterial constriction

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Centhaquine: Hypovolemic / Hemorrhagic Shock

Hypovolemic / Hemorrhagic Shock is a life-threatening condition with high mortality rates. The annual incidence is 0.3 to 0.7 per 1,000 in the US with a 15% to 20% mortality rate

Progression

Decreased Cardiac Output	Caused by severe blood or fluid loss	**Blood Pressure** ↓
Hypoperfusion of Organs	Due to poor cardiac output and perfusion of vital organs	**Oxygen Levels** ↓
Multiple Organ Failure	This is the critical driver of mortality	**Organ Failure** ↑
DEATH		

Reference: Uptodate; StatPearls, Annane et al. 2013 JAMA; Standl et al. 2018 Dtsch Arztebl Int.; Canon et al. 2018 NEJM; Standl et al. 2018 Dtsch Arztebl Int.

Centhaquine: Current Treatment Protocol

The current treatment protocol for hypovolemic shock includes a mix of fluid replacement and vasopressors

Current Treatment: Hypovolemic / Hemorrhagic Shock

Fluid Replenishment: Colloid / Crystalloid Solutions +/- Blood Products

If fluids insufficient: Vasopressors

Challenges with Current Treatment Protocol

- Arterial constriction, reduced tissue blood perfusion
- Cardiac Arrhythmias
- Fluid Extravasation
- Vasopressor Infusion requires careful titration

The administration of Centhaquine does not require the insertion of a Central Venous Line (peripheral IV administration instead)

Note: The average time to therapeutic intervention in the US is < 30 minutes (within the golden hour) versus > 60 minutes in India. This difference in therapeutic intervention is due to external factors

Centhaquine: Mechanism of Action

Centhaquine's MOA is distinct among resuscitative agents as it increases cardiac output while decreasing vascular resistance

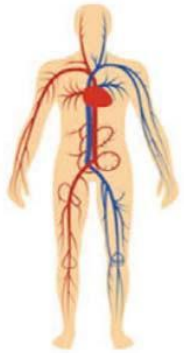
Centhaquine, A Resuscitative Agent Free of Arterial Constriction

- Stimulates α2B adrenergic receptors (venous)
- Increase venous return to heart
- Increases cardiac output
- Heart pumps more blood per beat

- Stimulates α2A adrenergic receptors
- Decrease in sympathetic drive
- Dilated blood vessels
- Decrease systemic vascular resistance

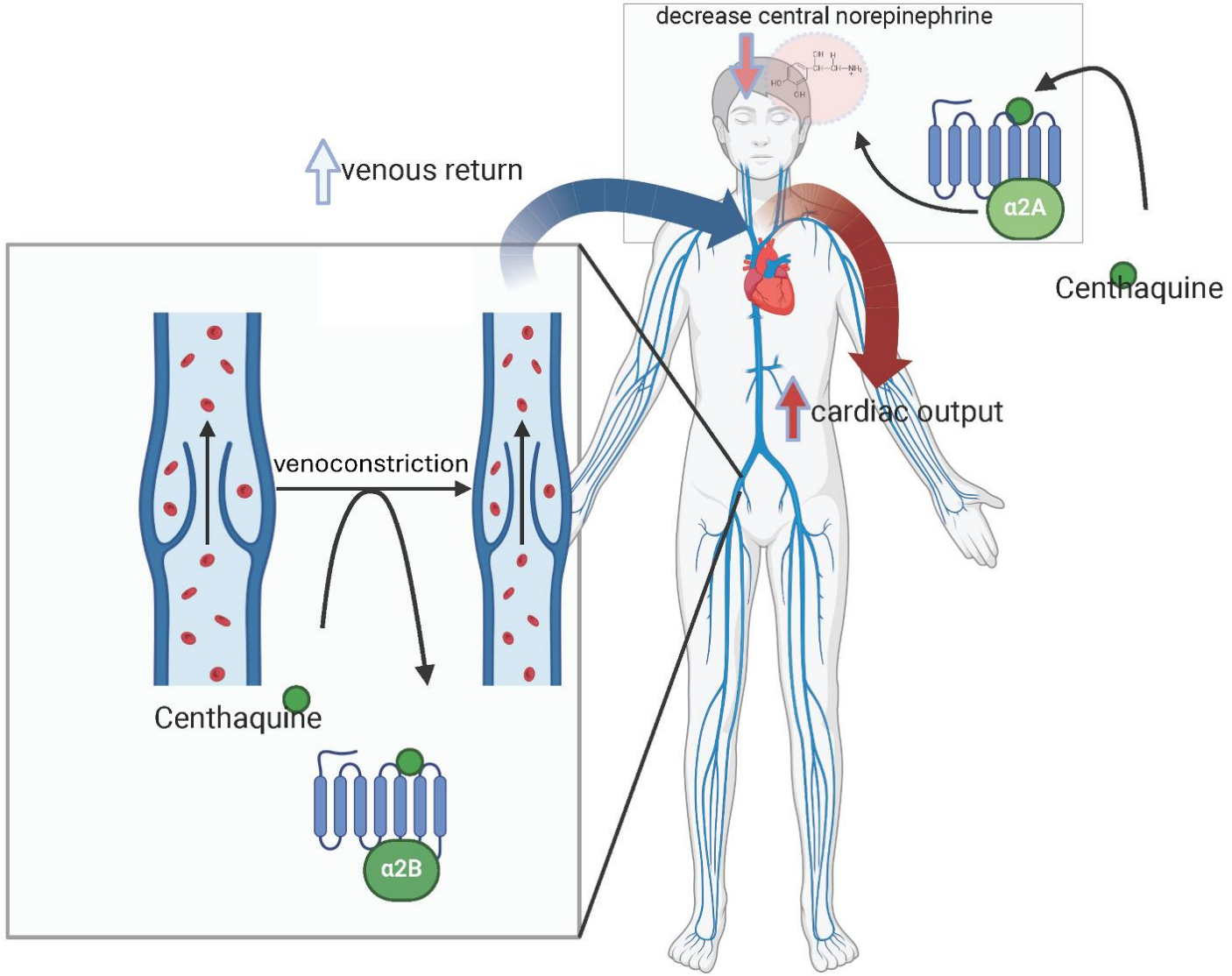
- Improved blood perfusion to tissue
- Improved oxygen supply
- Proper functioning of vital organs

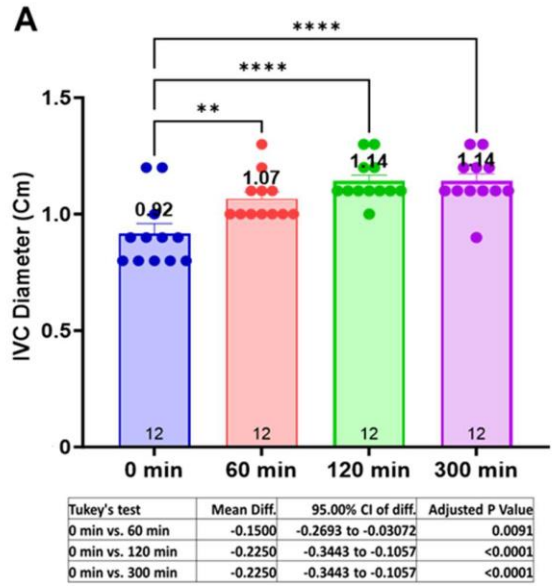
Cardiac Output



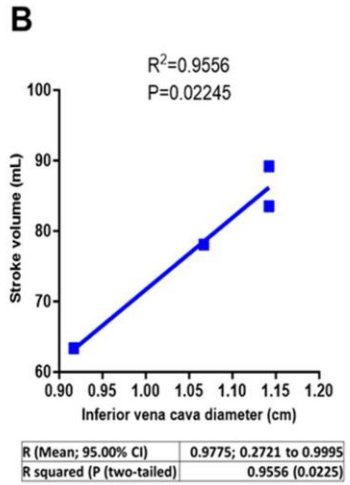
Vascular Resistance

Centhaquine increases cardiac output due to an increase in venous return in hypovolemic shock patients

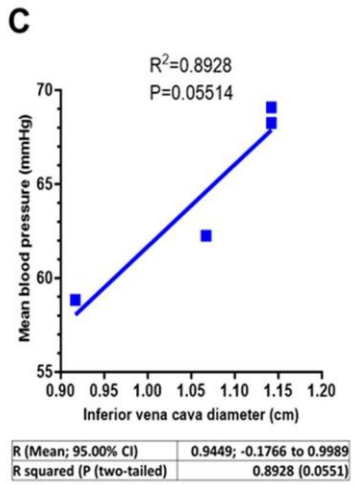




Tukey's test	Mean Diff.	95.00% CI of diff.	Adjusted P Value
0 min vs. 60 min	-0.1500	-0.2693 to -0.03072	0.0091
0 min vs. 120 min	-0.2250	-0.3443 to -0.1057	<0.0001
0 min vs. 300 min	-0.2250	-0.3443 to -0.1057	<0.0001



R (Mean; 95.00% CI)	0.9775; 0.2721 to 0.9995
R squared (P (two-tailed)	0.9556 (0.0225)



R (Mean; 95.00% CI)	0.9449; -0.1766 to 0.9989
R squared (P (two-tailed)	0.8928 (0.0551)

Centhaquine: Phase 3 Trial Results

Centhaquine's Phase 3 trial in India met all four primary efficacy endpoints. The trial's secondary endpoint, 28-day mortality, also trended toward the benefit

Study Design Summary

Key Parameters	Overview
Treatment Arms	• 71 patients: experimental arm: Centhaquine + standard of care • 34 patients: comparator arm: standard of care
Dosage	• Centhaquine administered at 0.01mg/kg, i.v. in 100 mL of normal saline
Efficacy Assessment	• SBP, DBP, Blood Lactate, base-deficit Secondary endpoint: 28-day Mortality

Phase 3 Primary and Secondary Endpoints

Endpoints	Results (% of patients)		P Value
	Control	Centhaquine	
SBP ≥ 110 mmHg at 24 hrs.	60.6	79.7*	P=0.0444
DBP ≥ 70 mmHg at 24 hrs.	51.5	76.6*	P=0.0122
Blood Lactate of ≤ 1.5	46.9	69.4*	P=0.0336
Base-Deficit <- 2.0 (mmol/L)	43.8	69.8*	P=0.0137
28-day Mortality	11.8	2.94	P=0.0742

Clinical Trials Identifier: CTRI/2019/01/017196 and NCT04045327

Reference: Gulati et al., (2021) Drugs. 2021 Jun;81(9):1079-1100; doi: 10.1007/s40265-021-01547-5; Gulati et al., (2021) Advances in Therapy 38 (6), 3223-3265. doi: 10.1007/s12325-021-01760-4.; Gulati et al., (2020) Drugs Fut 2020, 45(3): 153; doi: 10.1358/dof.2020.45.3.3098155.; Lyfaquin® clinical data

Centhaquine: Trial Protocol (US Phase 3 IND Approved)

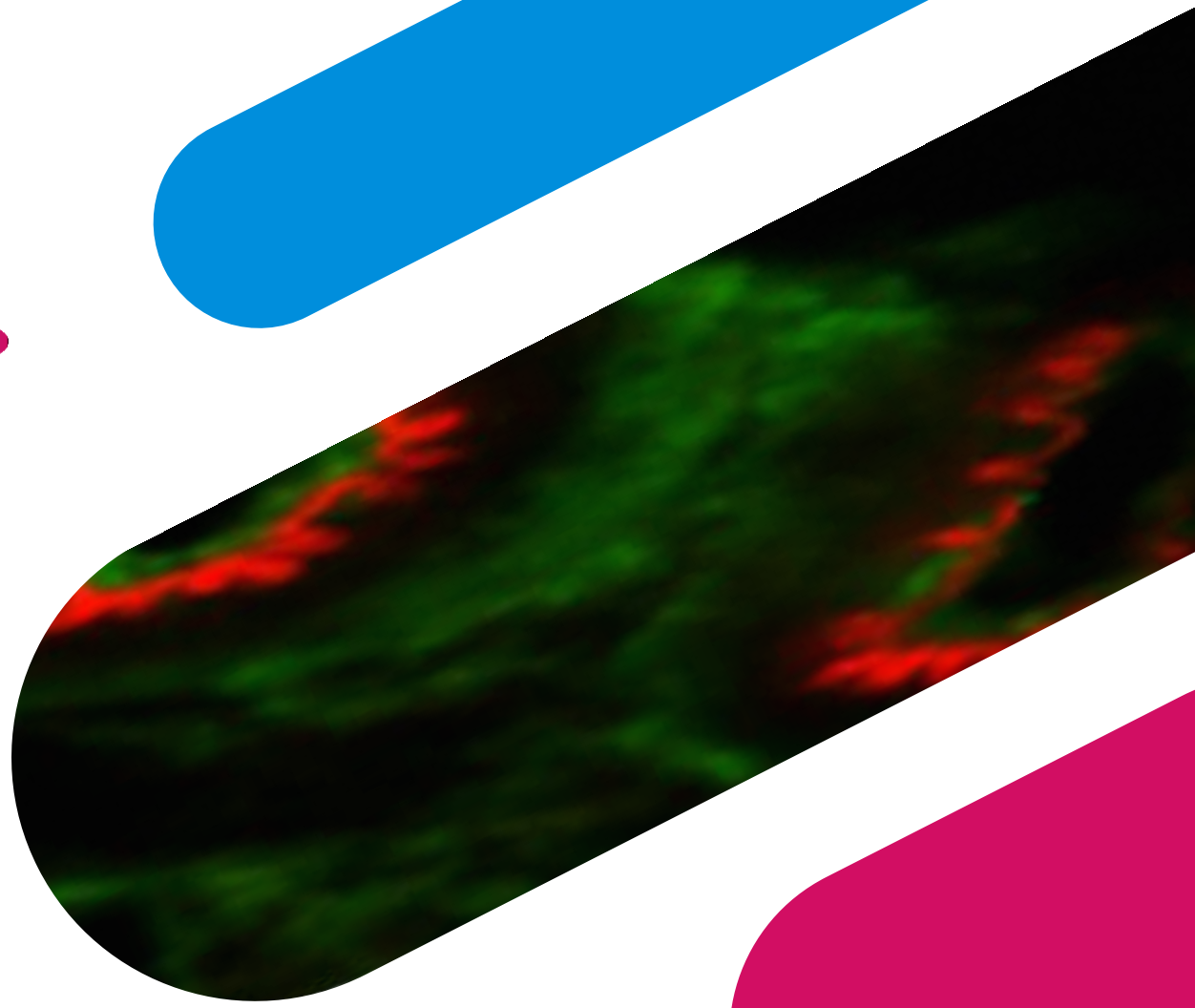
Study Design	
Design Parameters	Multi-Center, Randomized, Double-Blinded, Placebo-controlled
Dosage	0.01 mg/kg of Centhaquine + Standard of Care
No. of Participants	430 patients, randomly assigned equally to both arms
Time Frame	Enrollment period 12 months and total duration 24 months

Primary Endpoint	• All cause mortality at day 28
Secondary Endpoints	• Mortality 60 days • Ventilator free days • Days in hospital • Days in ICU • Days on organ support
Exploratory Endpoints	• Systolic and diastolic blood pressure • Blood lactate • Amount of fluid or blood infused • Change in Multiple Organ Dysfunction Syndrome score

The India Phase 3 study showed a ~75% reduction in mortality. A Phase 2 and 3 data meta-analysis reached statistical (p=0.03) significance. A prospective, multi-centric, open-labeled study of 400 patients to assess the safety and efficacy of centhaquine is ongoing; more than 270 patients enrolled.

Sovateltide

A first-in-class drug candidate to demonstrate statistically significant results in acute cerebral ischemic stroke since tPA



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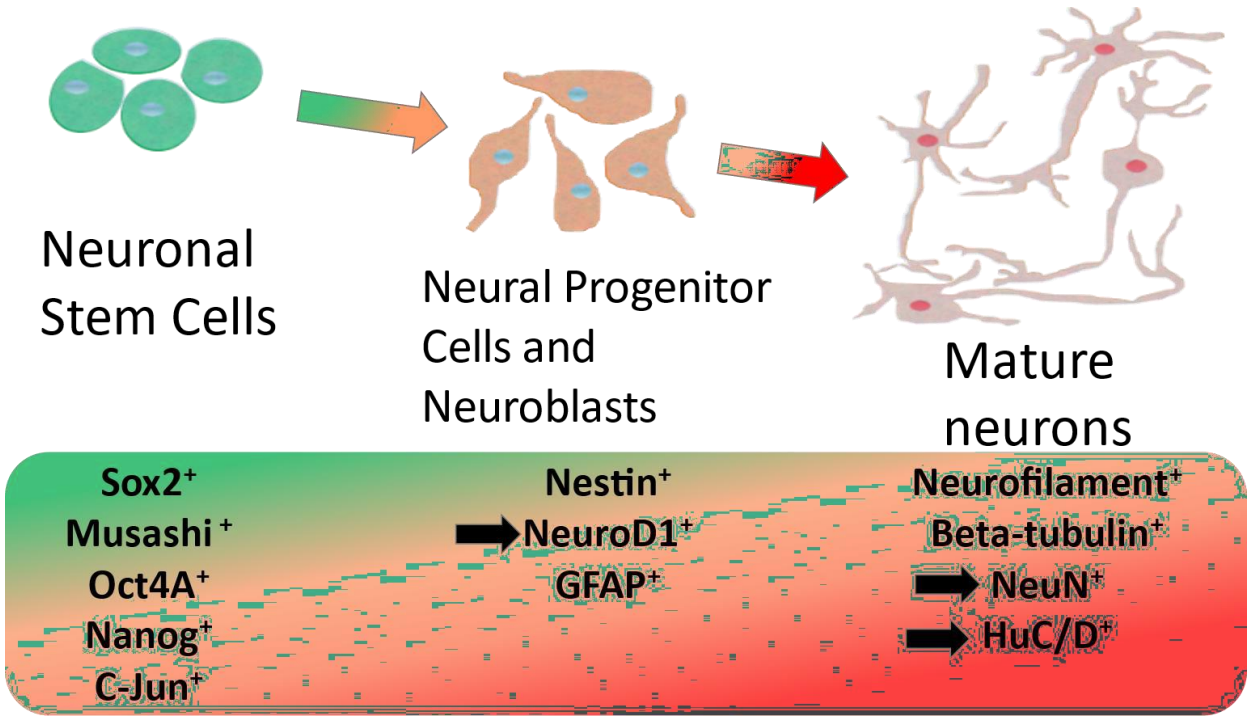
Sovateltide: Mechanism of Action

A highly selective endothelin-B receptor agonist

Mechanism of Action



- Increases cerebral blood flow
- Has anti-apoptotic activity with protection of neural mitochondria and enhances their biogenesis
- Produces neurovascular remodeling through the formation of new neurons and blood vessels
- Reduces infarct volume and improves neurological outcomes in an animal model of ACIS*

Sovateltide enhances the expression of markers for neural progenitor cells and neuronal cells, but not the stem cell markers

Reference: Ranjan et al., Sci Rep. 2020 Jul 29;10(1):12737. PMID: 32728189; Ranjan et al., Can J Physiol Pharmacol. 2020 Sep;98(9):659-666. PMID: 32574518; Briyal et al., Sci Rep. 2019 Jul 18;9(1):10439. PMID: 31320660; *Leonard et al., Brain Res. 2011;1420:48–58; Brain Res. 2012;1464:14–23; Brain Res. 2013;1528:28–41; Gulati Curr. Neuropharmacol. 2016;14(6):619–26; Gulati et al., (2021) CNS Drugs 35; 85–104. PMID: 33428177;; https://rdcu.be/cdps6

Sovateltide: SPA agreement with US FDA for Phase 3 Trial

Sovateltide Phase 3 IND clinical trial application approved by the US FDA (02/08/2023)

Patient with acute cerebral ischemic stroke

- Clinically and/or radiologically confirmed acute cerebral ischemic stroke
- No intracranial hemorrhage (CT/MRI)
- Presenting with 24 hours of onset
- Having NIHSS score ≥8 and <20
- NIHSS level of consciousness (1A) <2
- Not receiving endovascular therapy

Include

Randomize

Sovateltide + Standard of Care

Normal Saline + Standard of Care

Visit 1 (Day 1-6) Screening/Treatment/ Assessment

Visit 2 (Day 30±5) Assessment

Visit 3 (Day 60±5) Assessment (Telephonic)

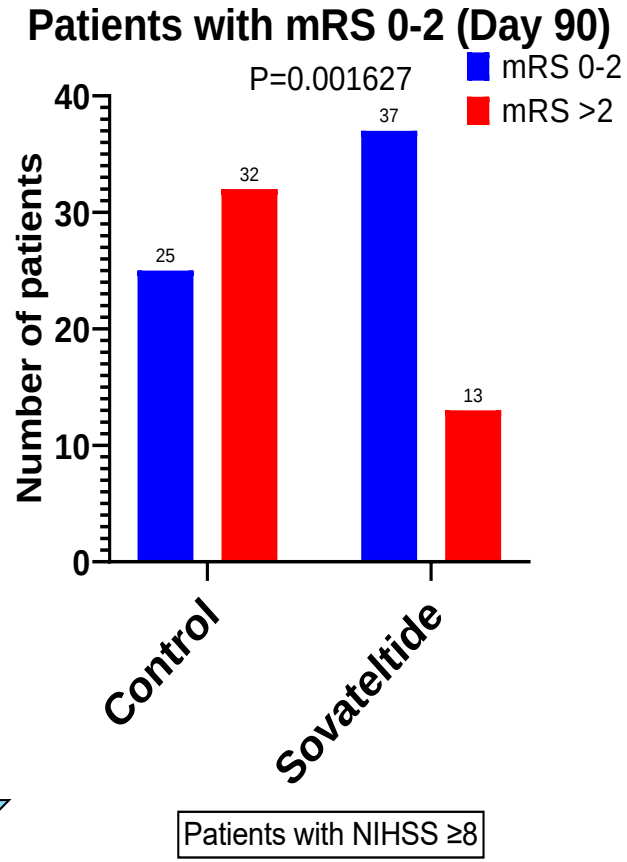
Visit 4/End of Study (Day 90±5) Assessment

Treatment and Assessment Visits

Standard of Care for Patients will Continue

Primary endpoint: Proportion of patients with mRS of 0 to 2 at 90 days.
Number of patients: 514 (Randomized into 2 groups 257 in each treatment arm)
Stratified based on early vs. late enrollment (<12 hours vs. ≥12 hours) and by the use vs. non-use of rtPA.

Phase III Trial Result



(NCT05691244)

Sovateltide: Key Differences In Study Protocol

Differences and similarities between India and US studies

Parameter	US Study (Special Protocol Assessment)	India Study
Primary endpoint	The proportion of patients with mRS of 0-2 at 90 days	The proportion of patients with improved neurological outcomes (mRS, NIHSS, BI) at 90 days.
Inclusion criteria	Age 18-80, Either sex; Ischemic stroke; Within 24 hours of stroke onset; NIHSS ≥8 to <20;	Age 18-78, Either sex; Ischemic stroke; Within 24 hours of stroke onset; NIHSS >5;
Exclusion criterion	Endovascular therapy, surgical intervention, intracranial hemorrhage, comatose, pregnancy	Endovascular therapy, surgical intervention, intracranial hemorrhage, comatose, pregnancy
Sample size; Randomization; Time from onset of stroke	514; 1:1 randomization; 50% within 12 hours (minimum 200 (40%) patients)	158; 1:1 randomization; within 12 hours 24% (38, 17 control and 21 sovateltide) patients
Interim analysis	No interim analysis	Trial complete, approved for marketing
Data analysis (Statistical Analysis Plan (SAP))	Multiple imputation for missing data, intention-to-treat (ITT) patients. SAP approved by FDA	No SAP. **The next Slide Table** is the data analyzed as per SAP with FDA, multiple imputation + ITT patients
Standard of care	SOC (thrombolytics, anti-coagulants, anti-hypertensive, anti-diabetic, mannitol, and other medication as needed)	SOC (thrombolytics, anti-coagulants, anti-hypertensive, anti-diabetic, mannitol, and other medication as needed)

Sovateltide: Phase III analysis of results

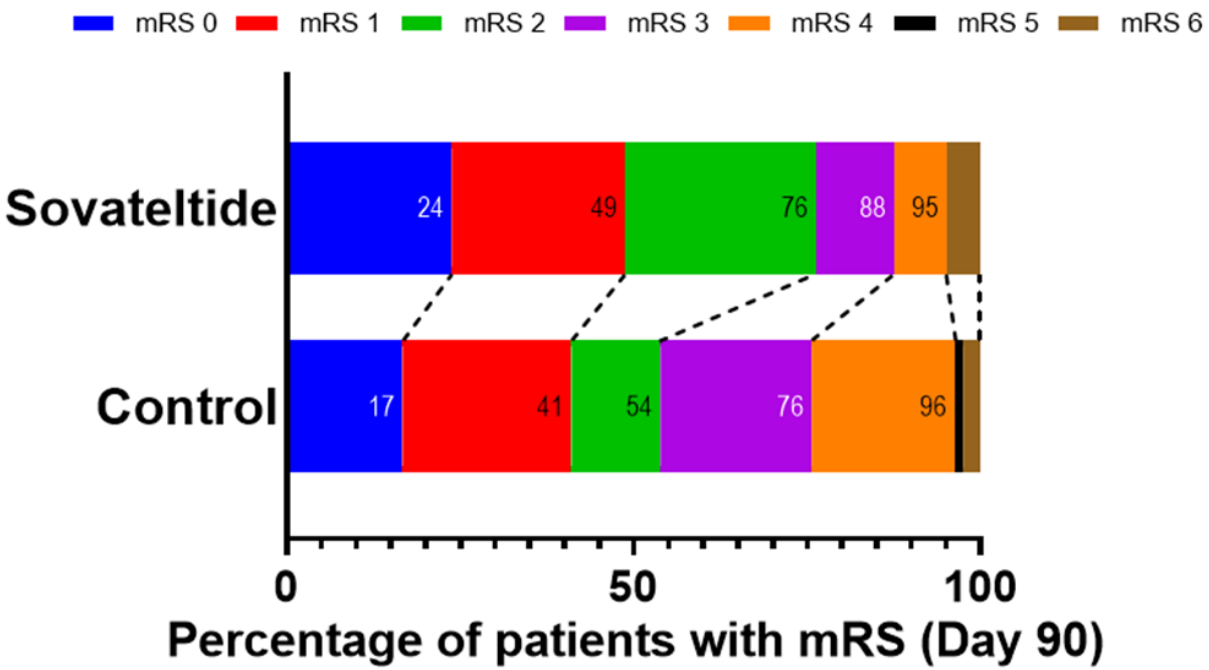
Data from 158 patients analyzed as per the agreed Special Protocol Assessment with the FDA

Number of patients with mRS of 0-2			
	Control (N=78)	Sovateltide (N=80)	P value
Day 90 (Primary end point)	53.58% (N=42)	76.25% (N=61)	0.0031
Day 30	41.03% (N=32)	63.75% (N=51)	0.0042
Day 6	20.51% (N=16)	32.50% (N=26)	0.0882
Number of patients with NIHSS of 0-5			
	Control (N=78)	Sovateltide (N=80)	P value
Day 90 (Secondary end point)	67.95% (N=53)	85.00% (N=68)	0.0114
Day 30	58.97% (N=46)	78.75% (N=63)	0.0072
Day 6	37.18% (N=29)	56.25% (N=45)	0.0163
Number of patients with BI of 90-100			
	Control (N=78)	Sovateltide (N=80)	P value
Day 90 (Secondary end point)	43.59% (N=34)	57.50% (N=46)	0.0804
Day 30	30.77% (N=24)	50.00% (N=40)	0.0138
Day 6	8.97% (N=7)	20.00% (N=16)	0.0495

Missing values imputed using Multivariate Imputation by Chained Equations (MICE)

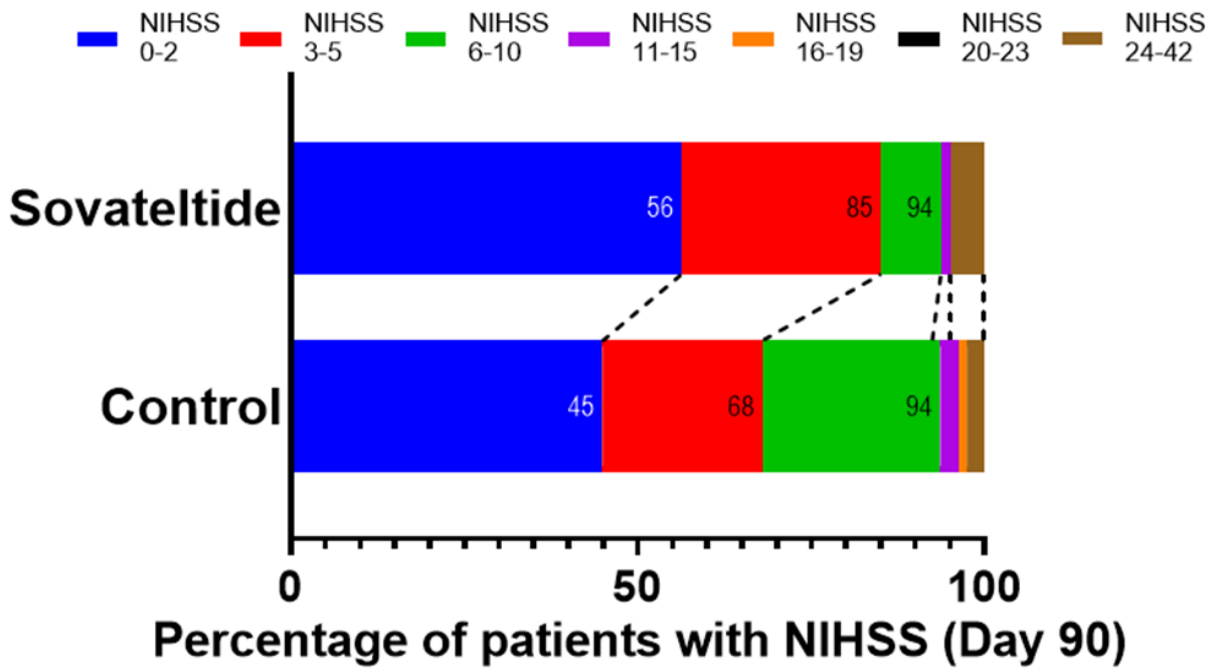
Sovateltide: Phase III analysis of results

Ordinal shift across the range of modified Rankin scale at 90 days



Distribution of scores on the Modified Rankin Scale at 90 days in the Intention-to-Treat population The modified Rankin Scale (mRS) score is the most widely used primary outcome measure in trials for acute stroke interventions. A modified Rankin scale score of 0 indicates no disability, 1 no clinically significant disability, 2 slight disability, 3 moderate disability but able to walk unassisted, 4 moderately severe disability, 5 severe disability, and 6 death.

Ordinal shift across the range of NIHSS scale at 90 days



Distribution of scores on the NIHSS Scale at 90 days in the Intention-to-Treat population. The National Institutes of Health Stroke Scale (NIHSS) is used to assess the severity of a stroke and the neurological deficit in stroke patients. The NIHSS of 1–4 = minor stroke. 5–15 = moderate stroke. 15–20 = moderate/severe stroke. 21–42 = severe stroke.

Data analyzed as per the Statistical Analysis Plan in the SPA agreed with the FDA

Missing values imputed using Multivariate Imputation by Chained Equations (MICE)

Status of US Phase 3 trial

A multicenter, randomized, double-blind, parallel, placebo-controlled phase III study will be conducted to assess the safety and efficacy of Sovateltide in patients with acute cerebral ischemic stroke. Control Group: Placebo + standard of care and Active Group: Sovateltide + standard of care (NCT05691244)

01
A total of 514 patients will be randomized 1:1 into two treatment groups after meeting the eligibility criteria

02
Respect-ETB trial across 65 sites in the United States, Canada, the United Kingdom, and Europe

03
Site activation is in progress in the United States, Spain, Germany and the United Kingdom

04
Thirty-eight sites approved for visit and activation

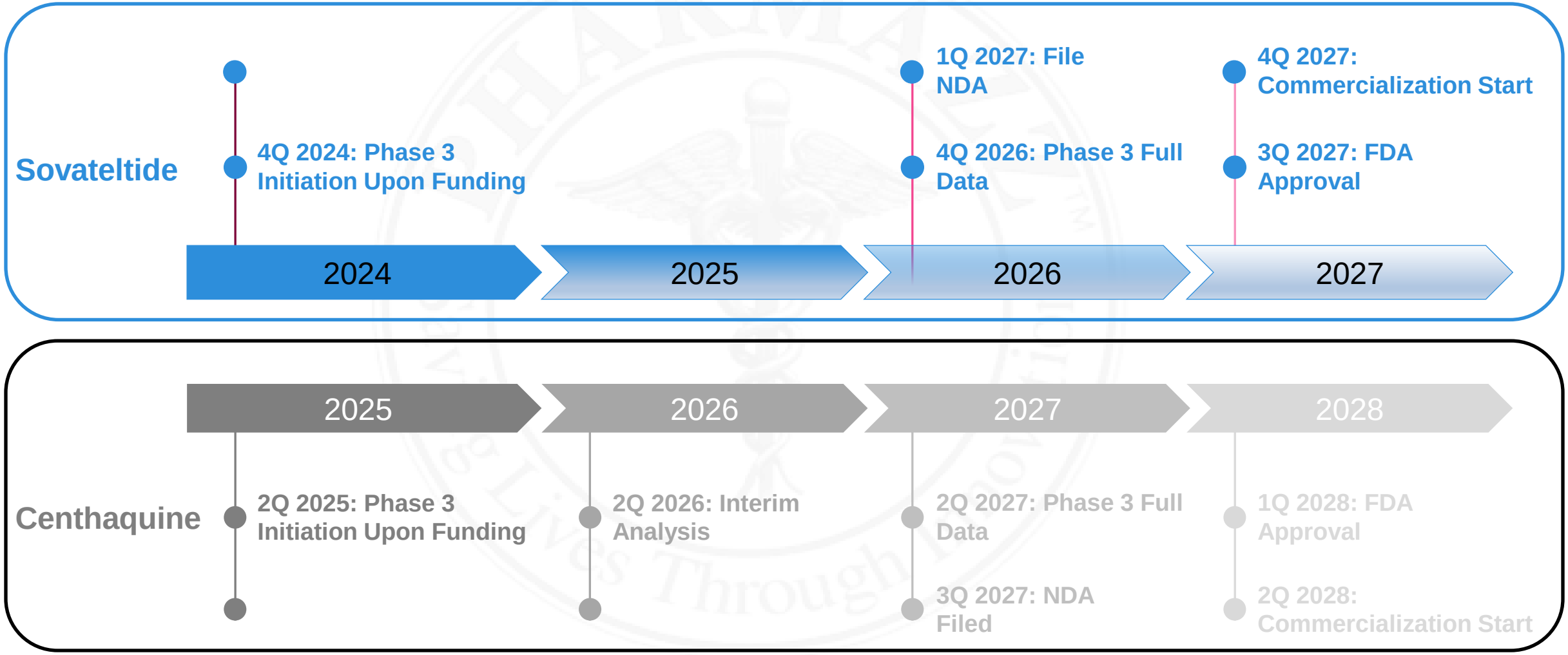
05
The study's enrollment period will be approximately 15 months, and its total duration will be approximately 18 months

06
The study duration for an individual patient will be 3 months (90 days), including 4 study visits

07
The first patient is likely to be dosed in the first quarter of 2025

Upcoming Milestones

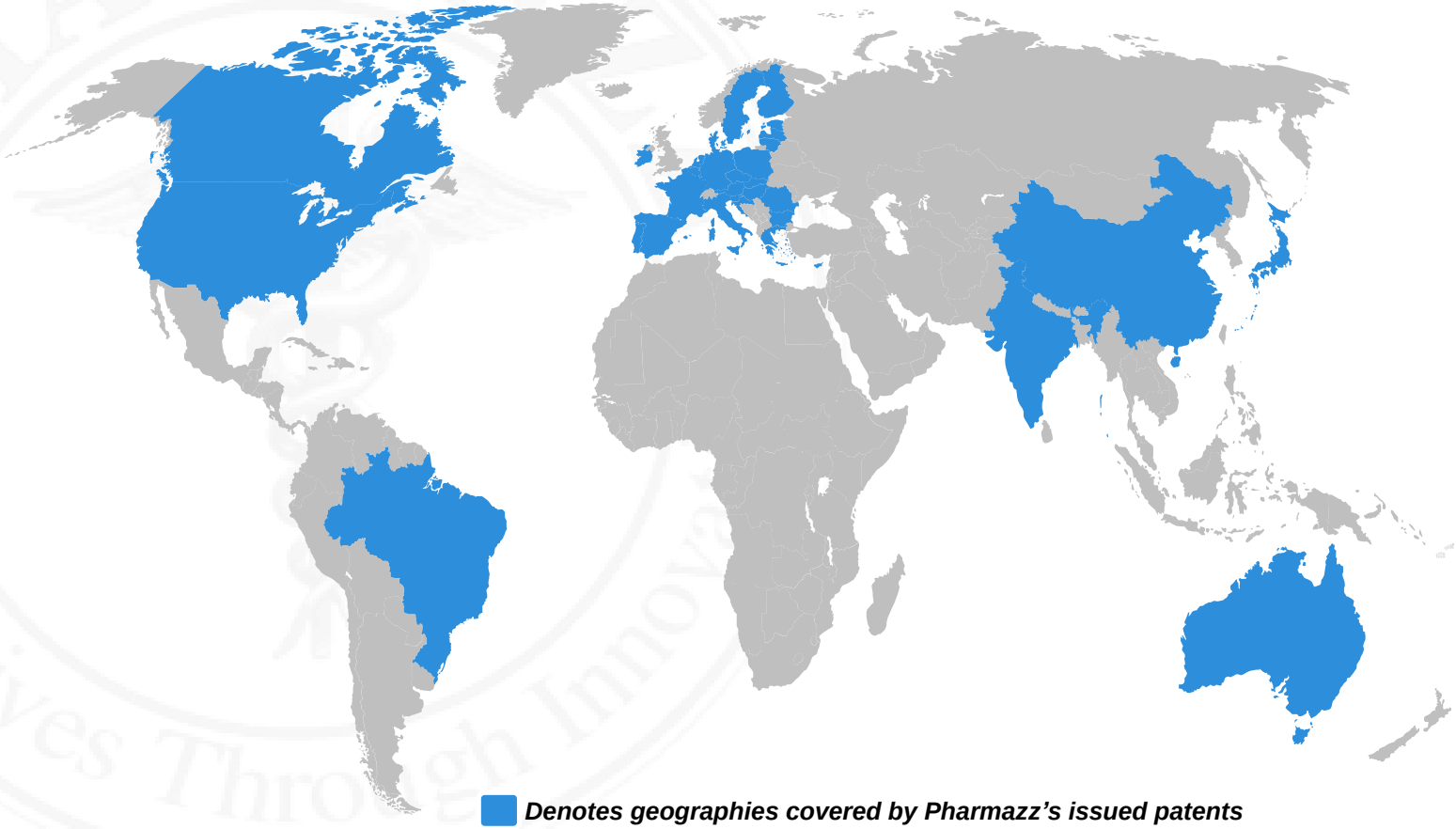
$35M projected to fund through Sovateltide commercialization



Patents and Licenses

- **Exclusive worldwide rights of intellectual property** from Midwestern University with, single-digit royalties due once commercialized
- **Several patent applications** related to Sovateltide and Centhaquine composition and methods Inc. under examination.
- **New patent application** in filing process currently

Over 50 Issued Patents Covering Relevant Geographies With Expiry Between 2028 and 2044



Denotes geographies covered by Pharmazz's issued patents

The Team

Experienced team with extensive drug development and clinical expertise

Anil Gulati, MD, PhD

Chairman and Chief Executive Officer

» Inventor with 40 years of drug discovery, development, clinical and management experience.
» 300 peer-reviewed publications and >50 issued patents

Neil Marwah, MD

President

» 30 years of experience in large healthcare provider organizations, government relations, managed care, private equity, and senior management at Global 500 enterprises

Manish Lavhale, PhD

Managing Director, India

» 20 years of pharmaceutical industry experience
» Expertise in regulatory strategy, with lead role in development of Centhaquine and Sovateltide

David Costello

Vice President and Controller

» 25 years of financial and accounting experience
» Assisted closing of >$500 million in structured finance and equity transactions

Sunil Gulati, PhD

Chief Operating Officer

» 35 years of running medium sized companies with governance and compliance expertise
» In house development of clinical trials team and successful completion of numerous trials

Dharmesh Shah, MD, DM

Assistant Medical Director

» 15 years of clinical and pharmaceutical industry experience
» Expertise in medical affairs with a role in the development of Centhaquine and Sovateltide

PHARMAZZ Summary

Late-stage biopharmaceutical company with **two US FDA approved Phase 3 INDs for clinical programs** addressing the underserved critical care market

Lead asset (Sovateltide) designed to transform the treatment of acute cerebral ischemic stroke, supported by **the first statistically significant clinical data in 25+ years**

Secondary asset (Centhaquine) designed to **reduce mortality as a resuscitative agent and improving cardiac output and blood pressure** without arterial constriction in hypovolemic shock patients

Lead pipeline programs designed to address multibillion dollar end markets and **line of sight on market debut by early 2027**

Worldwide rights in hand with potential to partner both Sovateltide and Centhaquine in selected geographies

Validating and functional partnerships for sales and distribution in India

Sovateltide — Centhaquine

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Thank You