Provascor

PROTECTING THE HEART

MRS2339 AS A FIRST-IN-CLASS NOVEL PROTECTIVE DRUG

Provascor.com

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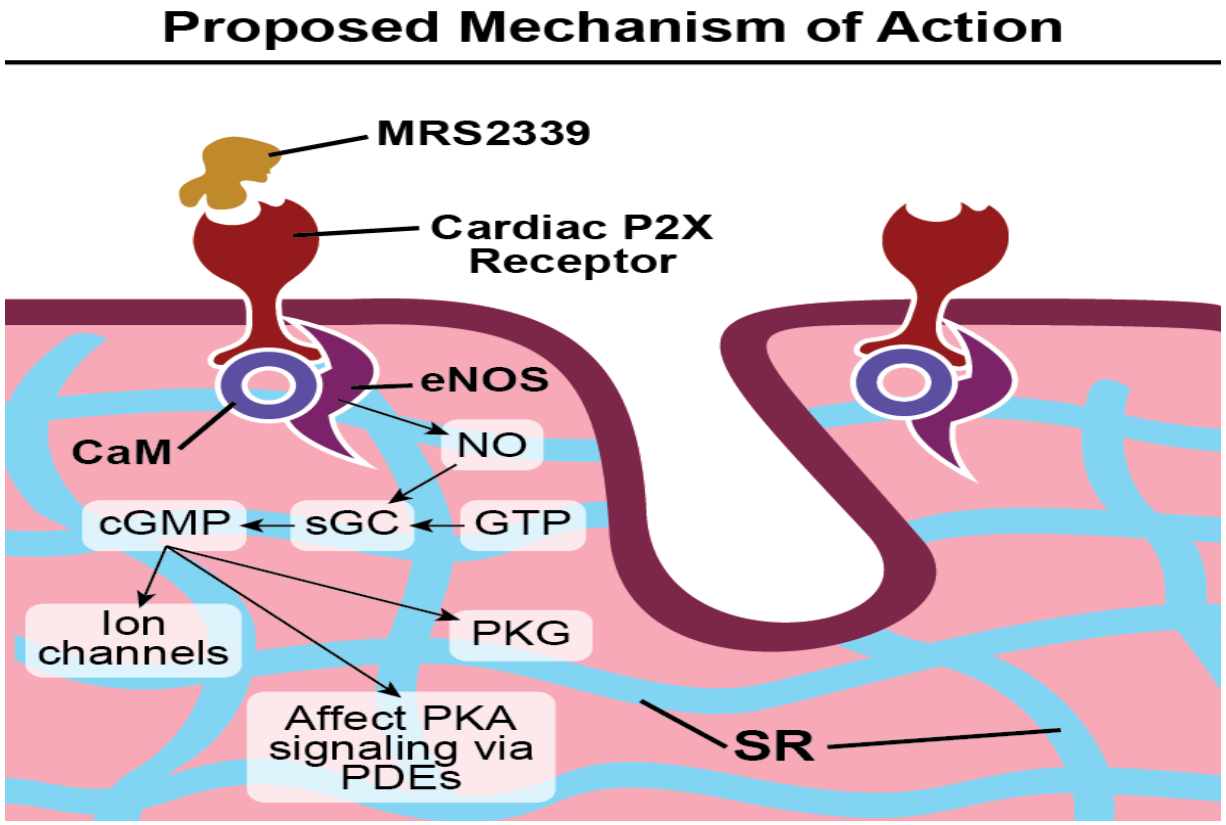
MRS2339 is a first-in-class drug to treat patients with systolic heart failure without causing any drop in blood pressure or change in heart rate.

- The rationale: The heart's pumping ability is severely reduced, associated with low blood pressure, particularly in those with Class IIIb and Class IV heart failure.
- The problem: All current drugs lower blood pressure, causing concern by providers and lack of compliance from patients, particularly those in late/end stage HF;
- Unmet need: There is a need to develop new medical therapy for patients with late/end stage HF;
- The solution: MRS2339 can benefit these patients and address an unmet medical need with oral, SQ & IV formulations to treat the full spectrum of heart failure;
- Very high disease burden: 3-month readmission rate is up to 40% and 4-year mortality rate after advanced heart failure diagnosis is nearly 80%;
- Very high economic burden: cost projected to reach $70B by 2030 in the U.S. alone;
- We aim to raise $30m: Phase 1b ($5m) with dose escalation on Class IIIb/Class IV patients and Phase 2 trial ($25m) for POC as a therapy for hospitalized patients with worsening heart failure and as a SQ therapy for bridging to outpatient setting.

MRS2339 has a unique mechanism of action with cardiac-specific increase in cyclic GMP which is an established cardioprotective molecule

- MRS2339 is a cardiac P2X receptor agonist that is a hydrolysis-resistant adenosine monophosphate derivative;
- Physical association of P2X receptors with endothelial Nitric Oxide Synthase (eNOS) in the heart;
- MRS2339 is without vasodilator effect or effect on immune cells;
- Increase stroke volume and cardiac output & reverse the maladaptive remodeling;
- Cardioprotective with benefits lasting for at least one month post-dose;
- Efficacious in rescuing HF in multiple animal models of heart failure;
- Can be additive to other heart failure drugs and not replacing them.

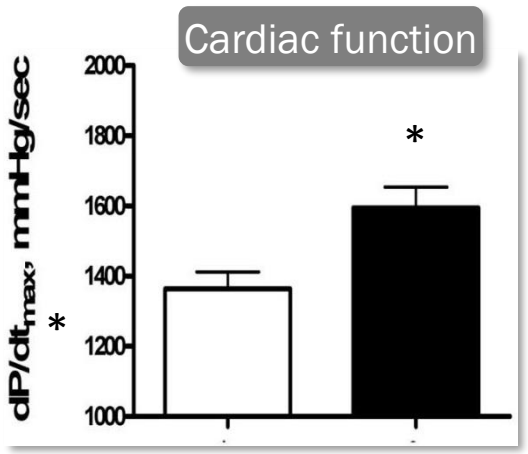
MRS2339 differs from nonselective cyclic GMP stimulating drug which tends to cause hypotension in sick patients

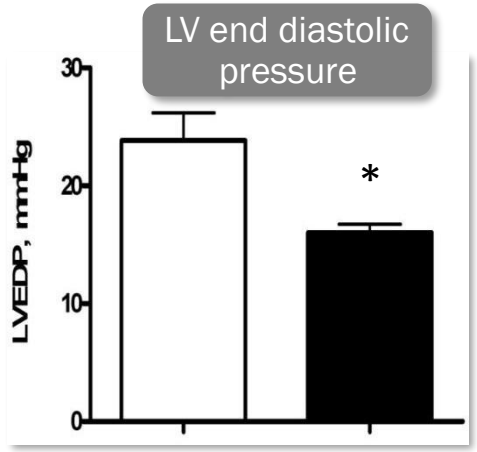


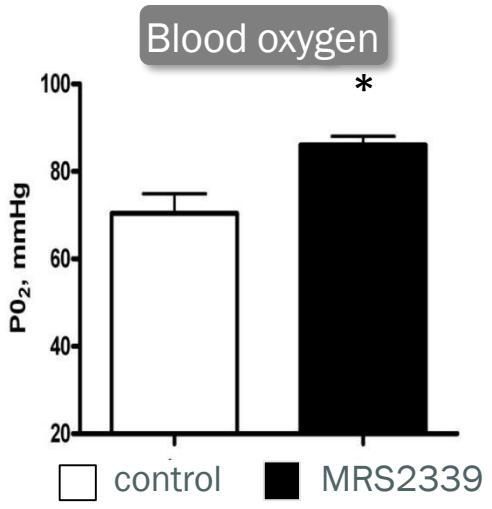
MRS2339 increases nitric oxide and subsequnent increase in cyclic GMP with both being localized to heart

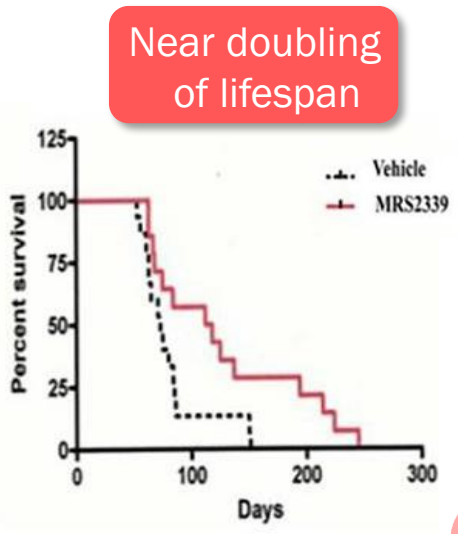
MRS2339 improves heart function and prolongs lifespan in animal models

- MRS2339 improved contractile function, oxygenation and reduced lung congestion due to decreased left ventricular end diastolic pressure (LVEDP) which is equal to the pressure in the lungs (higher pressure impairs oxygenation)-saw improvement in just 4-5 dogs.
- MRS2339 preserved LV wall thickness, increased stroke volume and decreased LV remodeling
- Extended survival in a mouse model of severe dilated cardiomyopathy
- Wide therapeutic range: up to 22.5-fold









* P<0.05 vs control dogs

Mouse

No Competition in Class IIIb and Class IV Heart Failure Patients

Company	Product	Likely Effect on BP in Class III & IV	% Class IV in Phase 3 Trial	Clinical Benefit in Class IV Patients
AstraZeneca	farxiga (dapagliflozin) 5mg & 10mg tablets	↓	< 1% in DAPA-HF	No
Boehringer Ingelheim	Jardiance (empagliflozin) tablets 10 mg/25 mg	↓	0.5% in EMPEROR-REDUCED	No
MERCK	Verquvo (vericiguat) tablets 2.5 mg, 5 mg, 10 mg	↓	1.4% in VICTORIA	Not Shown for Class IV
novo nordisk	VICTOZA liraglutide injection 1.2 mg | 1.8 mg		FIGHT	Worse
NOVARTIS	Entresto Sacubitrilo-Valsartán	↓	100% in LIFE	No

MRS2339 does not cause hypotension while producing benefits in many animal models of systolic HF. MRS2339 is different from Verquvo which non-selectively increases cyclic GMP throughout and risks causing decreased blood pressure. We expect that MRS2339 will have little competition in late/end stage HF.

MRS2339 testing is completed in Phase 1a study on healthy human volunteers without safety concerns or serious adverse effect

Phase 1a –First-in-Human Study

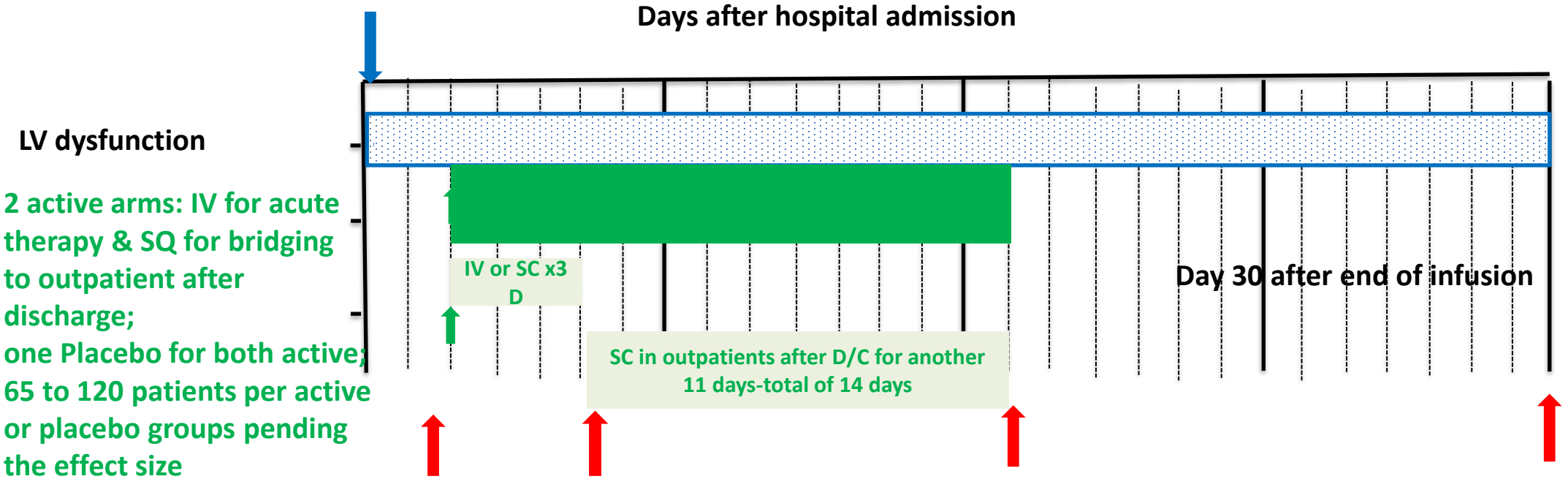
- Randomized, double blind, single ascending dose (SAD) in healthy volunteers (HV)
- Assess the safety, tolerability, and pharmacokinetics (PK)
- 24hr IV infusion and 24hr monitoring in-house) for 3 days: day-1, Day 1, Day 2
- 3 cohorts with 8 healthy subjects (4 males and 4 females) per cohort and total of 5 dosings.

The highest of the 5 dosing levels is without any safety concerns or change in blood pressure or heart rate. This highest dosing level is 22.5 -fold or even higher than the anticipated efficacious dosage in humans. We expect a wide therapeutic range in patients. The lack of blood pressure or heart rate changes is a unique property, making the drug candidate suitable for all patients including severe heart failure. FDA agrees with the results of the 1a study and deems the drug safe in HV. ***PD effect with target engagement is already evident.***

Phase 2 POC for those with Class IIIb & IV heart failure using the $25m

FDA advice requested, obtained and incorporated

Study on worsening HF: timeline after hospitalization



Primary endpoint on LV end systolic volume index; secondary enpoints on NT-proBNP, various echocardiographic functions & safety endpoints are adverse effects and serious adverse effects

Timeline on the Phase 1b/Phase 2 trial for the indication of treating worsening HF- using the $25-$30m:
SC formulation developed with approval by FDA & SC delivery device testing done

Mid 2024 – Mid/Late 2025-completed

Milestone 4
Phase 1a Clinical trial in
Healthy Subjects IV infusion

Mid 2026 – Late 2027

Milestone 5 FDA approved protocol
Phase 1b Clinical Trial in Class III, IV
with IV infusion for safety, PK and PD

2027 – 2029

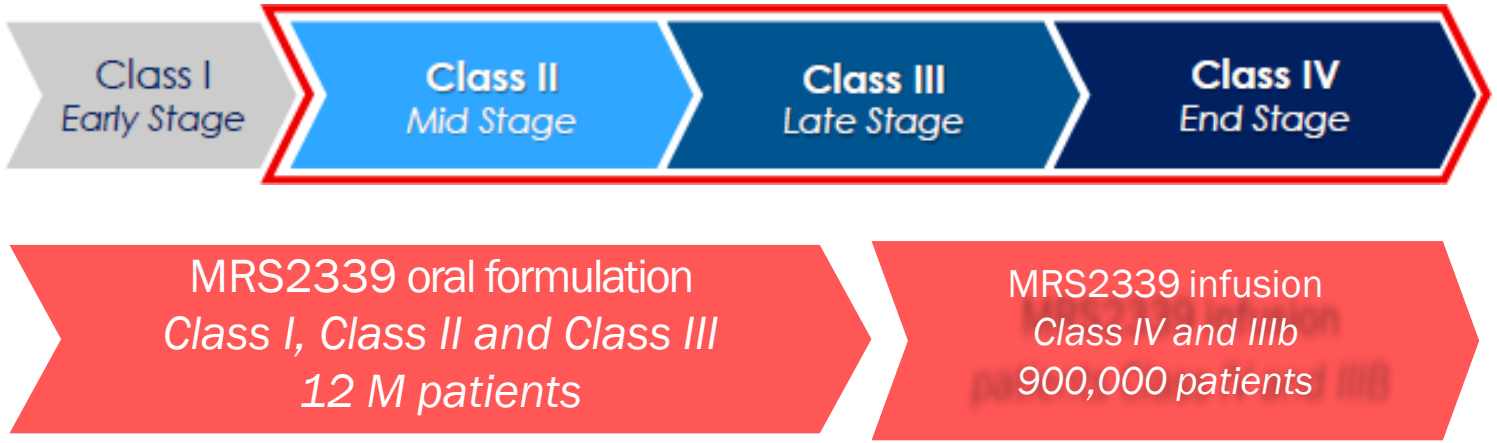
Milestone 6 FDA approved protocol
Phase 2 POC using IV and/or SC
formulations for worsening HF

2029-2030 – exit options

Milestone 7
Partnership or acquisition by pharma, IPO

IV or SQ infusion is for Class IIIb & Class IV patients;
Oral ingestion is for chronic use in milder cases

The annual gross revenue is based on $5,000-$7,000 for one infusion cycle of and 20% market penetration for $0.9B-$1.26B. Repeat cycle can be considered for each episode of worsening heart failure with doubling or tripling of gross sale. Repeat cycles are considered after the benefits waned after each cycle.
Oral therapy anticipates $16.8B of annual gross sale.



Patients US + EU	$ annual sales
13M	$40B cost (US)

Provascor Leadership and Operation

Bruce Liang, MD
Cardiologist/ Scientist,
Dean of UConn School of Medicine,
Co-Founder & Lead Advisor

Mark Van Allen
Chief Operating Officer, Former head of UConn R&D
Aided by 3 staff

Martin Bexon, MD,
Bexon Clinical, Inc.
Medical Monitor, Regulatory Support, Previously at CSL Behring and Roche

William White, MD
Clinical Pharmacologist,
Point on Clinical and Cardiovascular Safety Endpoint

Mary E ("Beth") P Goad, DVM, PhD, Board-Certified Veterinary Pathologist and Toxicologist With >30 Years of Experience.

Donna Mancini, MD, Clinical Development and Strategy Advisor on Heart Failure, Previously Led Advanced Heart Failure and Cardiac Transplant Programs at Columbia and Mount Sinai

James Heym, PhD

Science Advisor, Led Drug Discovery and Development As Vice President at Pfizer

Preclinical and clinical plans on the oral formulation-need $5m for Phase 1 & $25m-$27m for Phase 2 POC in Class II and Class III heart failure

Mid 2026 - Mid 2027

Milestone 1
Successful development and testing in preclinical animal model

Late 2027 – Mid 2028

Milestone 2
IND submission for an open IND in Phase 1 Clinical Trial on Class I, II or III heart failure patients

Mid 2029 – Late 2029

Milestone 3
Analyze data on clinical POC from Phase 2 IV&SC trial & Ready for Phase 1 trial using oral drug

Late 2029 – Early 2030

Milestone 4
Fund raising and conducting Phase 1 trial on oral drug in patients with mild HF

Lead and co-lead oral formulations as stable emulsions have been developed and are feasible to manufacture.