



CorPhylaxis, Inc.

Arresting heart failure progression through the world's first cell-subpopulation-targeted genetic medicines.

Anis Hanna, MD Founder & CEO

Polina Alieva Founder & COO

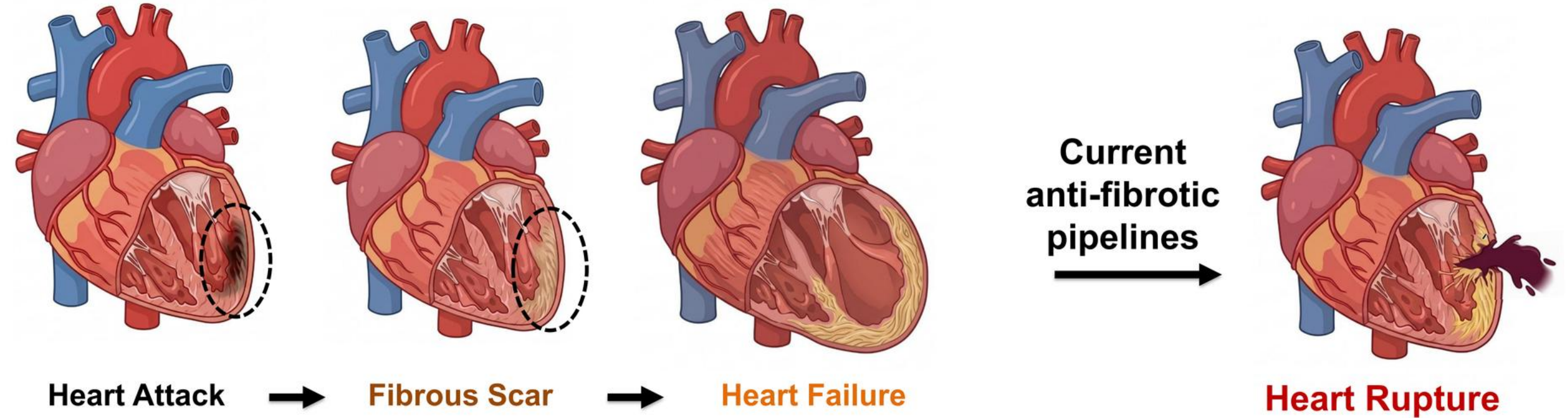
corphylaxis.com

contact@corphylaxis.com



Top 15 Venture; Cure MEHA II

The fatal paradox of heart fibrosis after heart attack



After a heart attack, dead tissue is replaced by a fibrous scar to **prevent heart bursting**. However, **expansion of the same scarring process** to the healthy heart beyond injury site causes progressive damage and fatal heart failure.

Current anti-fibrotic pipelines act indiscriminately, dissolving the protective scar, causing **lethal heart rupture**.

Broad targeting of heart fibrosis has always failed because we end up weakening BOTH the protective and the harmful fibrosis.

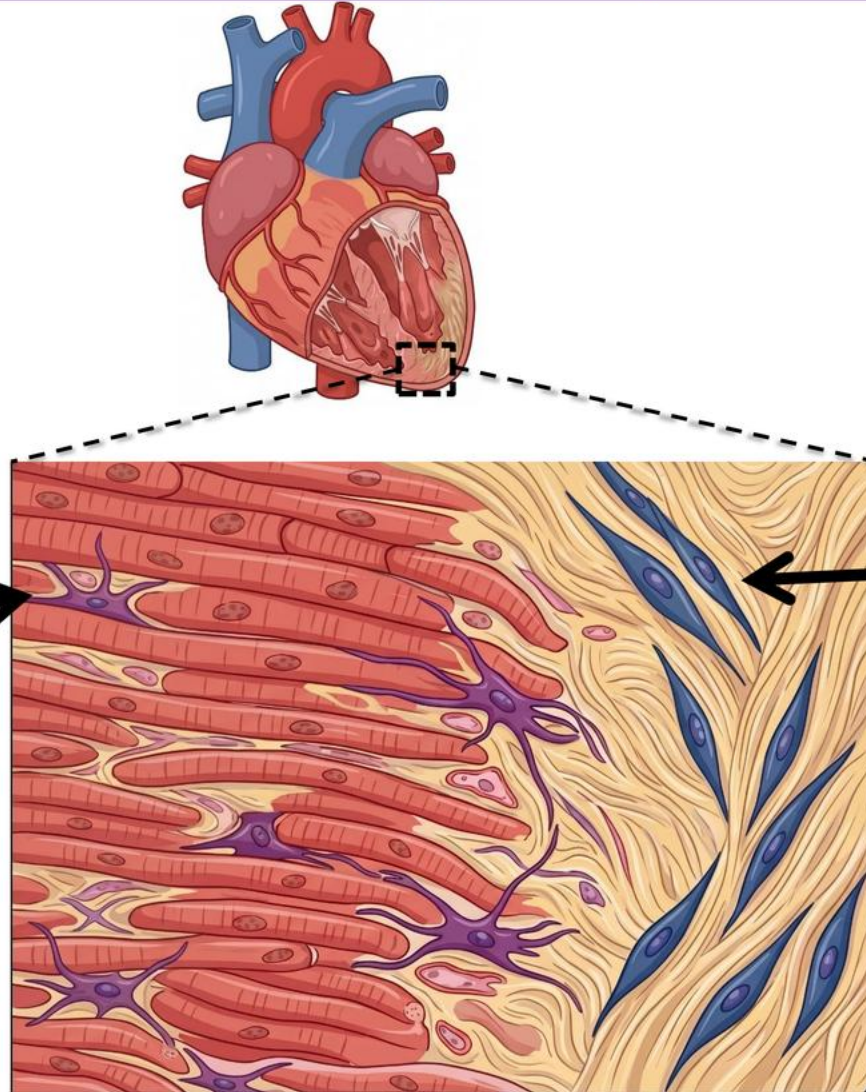
Our award-winning discovery: spatially-distinct fibroblast subsets

The invasive fibroblasts, driven by the mediator of migration Target X expand to the healthy heart beyond injury border causing heart failure.

Invasive Fibroblasts

The reparative fibroblasts, driven by the regulatory mediator Target Z, make up the protective scar that preserves heart integrity.

Reparative Fibroblasts



Featured in

Circulation

 **ALJAZEERA**

sky news

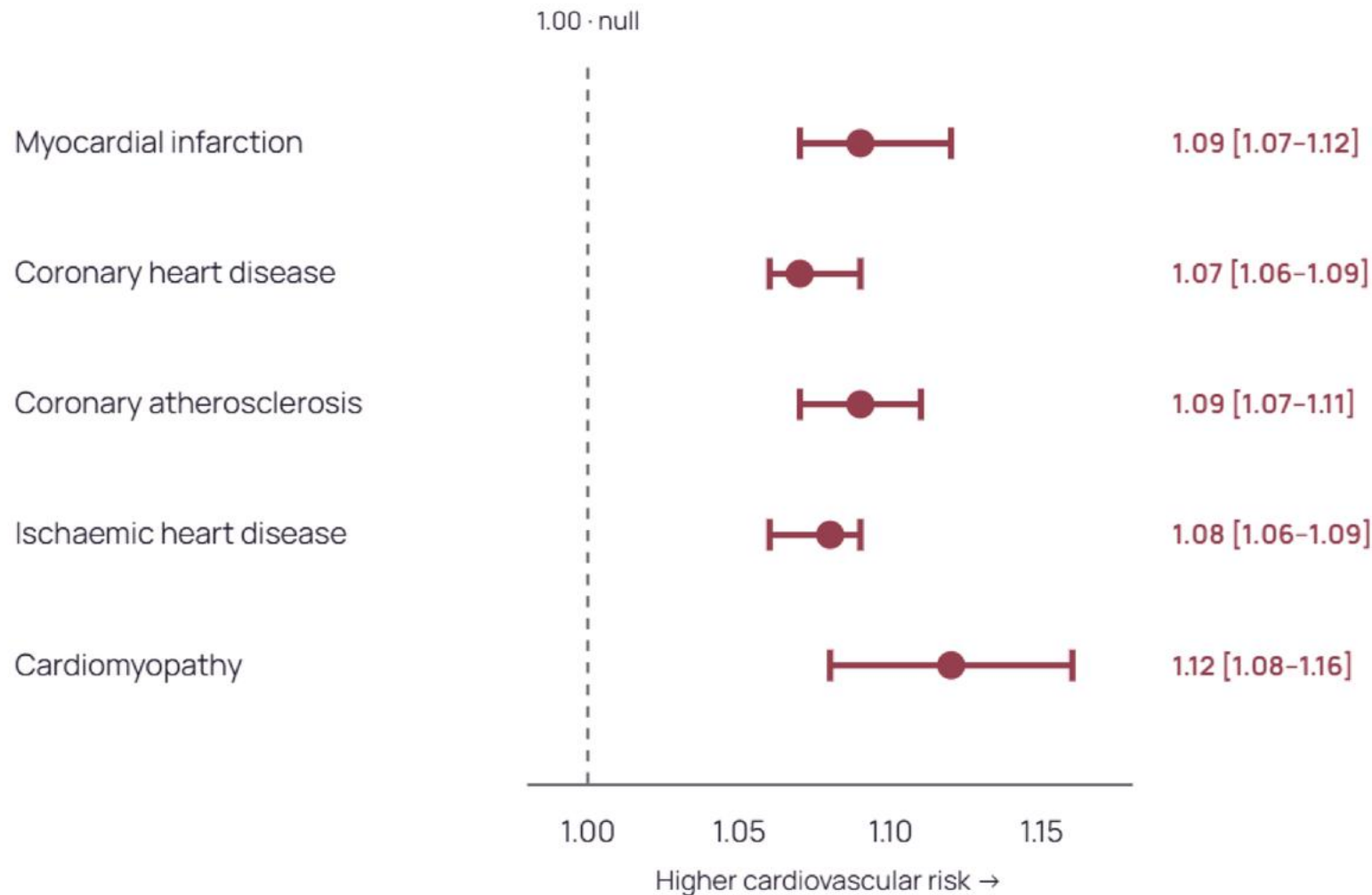


American
Heart
Association.

**Katz Award
Innovative Project Award**

Now we can selectively target the harmful fibrosis expansion without disrupting the protective scar.

Human genetics supports Target X as a causal driver of worse heart failure outcomes

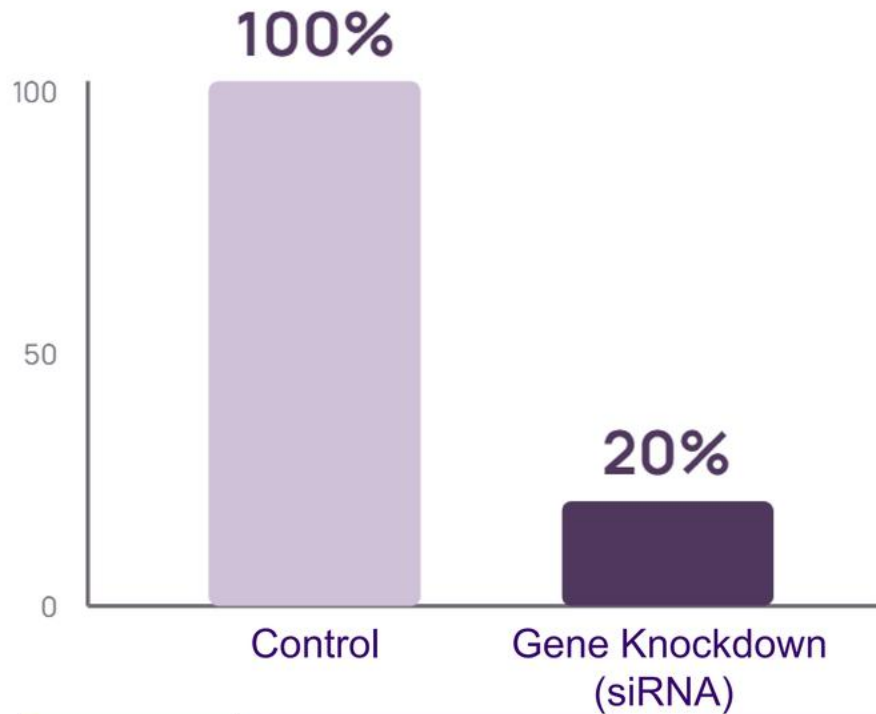


Odds ratio per 1-SD higher genetically predicted expression

Large-scale human genetics associate higher expression of Target X with increased cardiovascular risk.

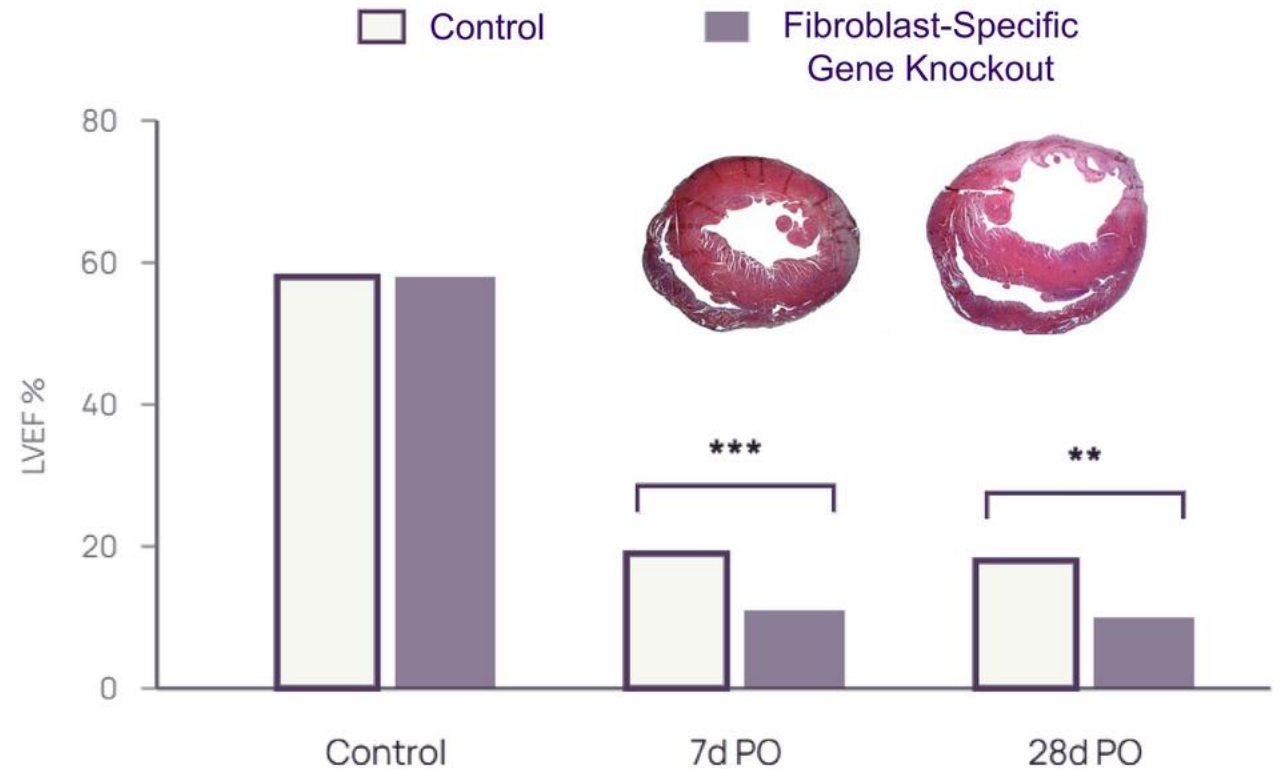
Preclinical Proof of Concept: Halting Invasion & Protecting the Heart.

Targeting Target X halts fibroblast invasiveness in a 3D microphysiological model that follows FDA's New Approach Methodologies (NAMs)



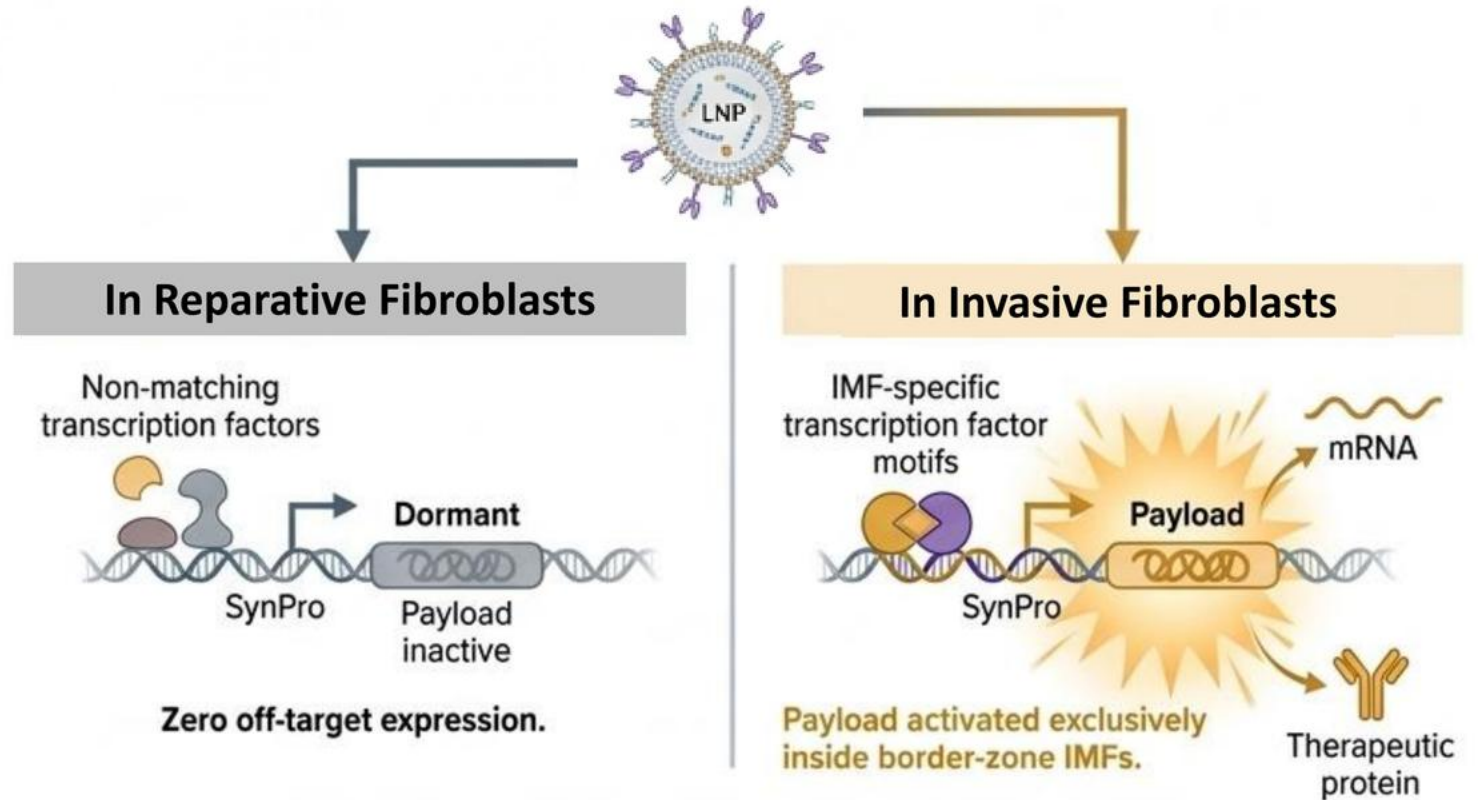
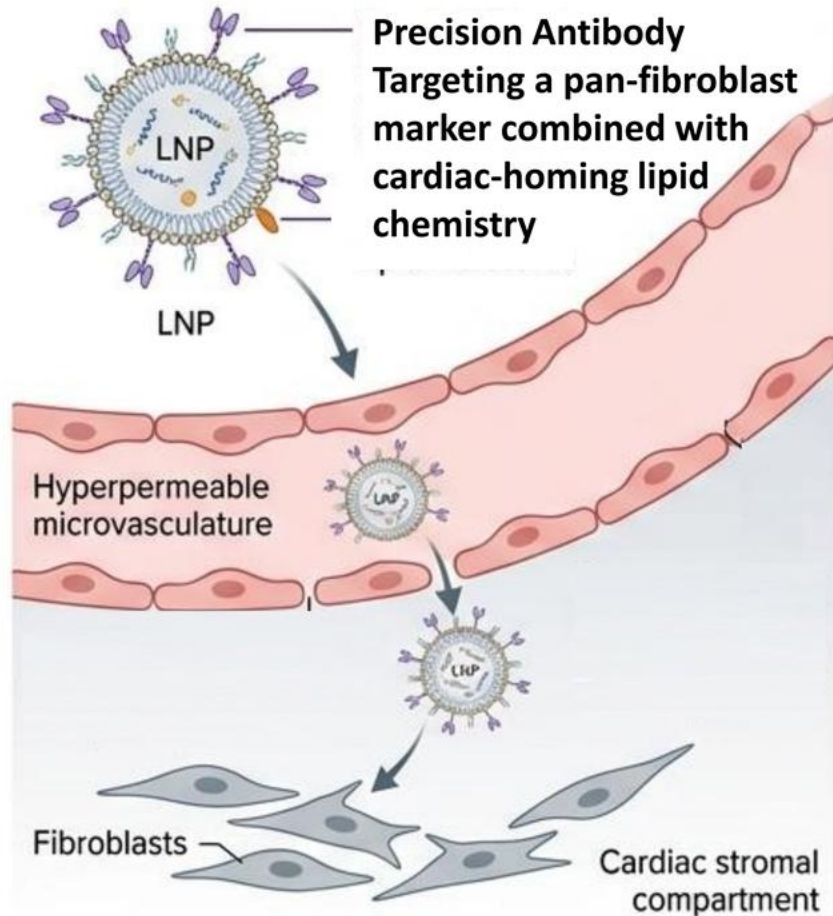
Invasion Paralyzed by 80%

Target Z protects against expansion of fibrosis in the scar borders, thus protecting heart function in our mouse model of surgically-induced heart attack.



Target Z protects heart function

Our dual-key Lipid Nanoparticle (LNP) platform: The world's first heart failure precision therapy targeting only the harmful invasive fibroblasts.



The therapy is active **ONLY** in the invasive disease-causing cells, sparing the reparative cells and the protective scar.

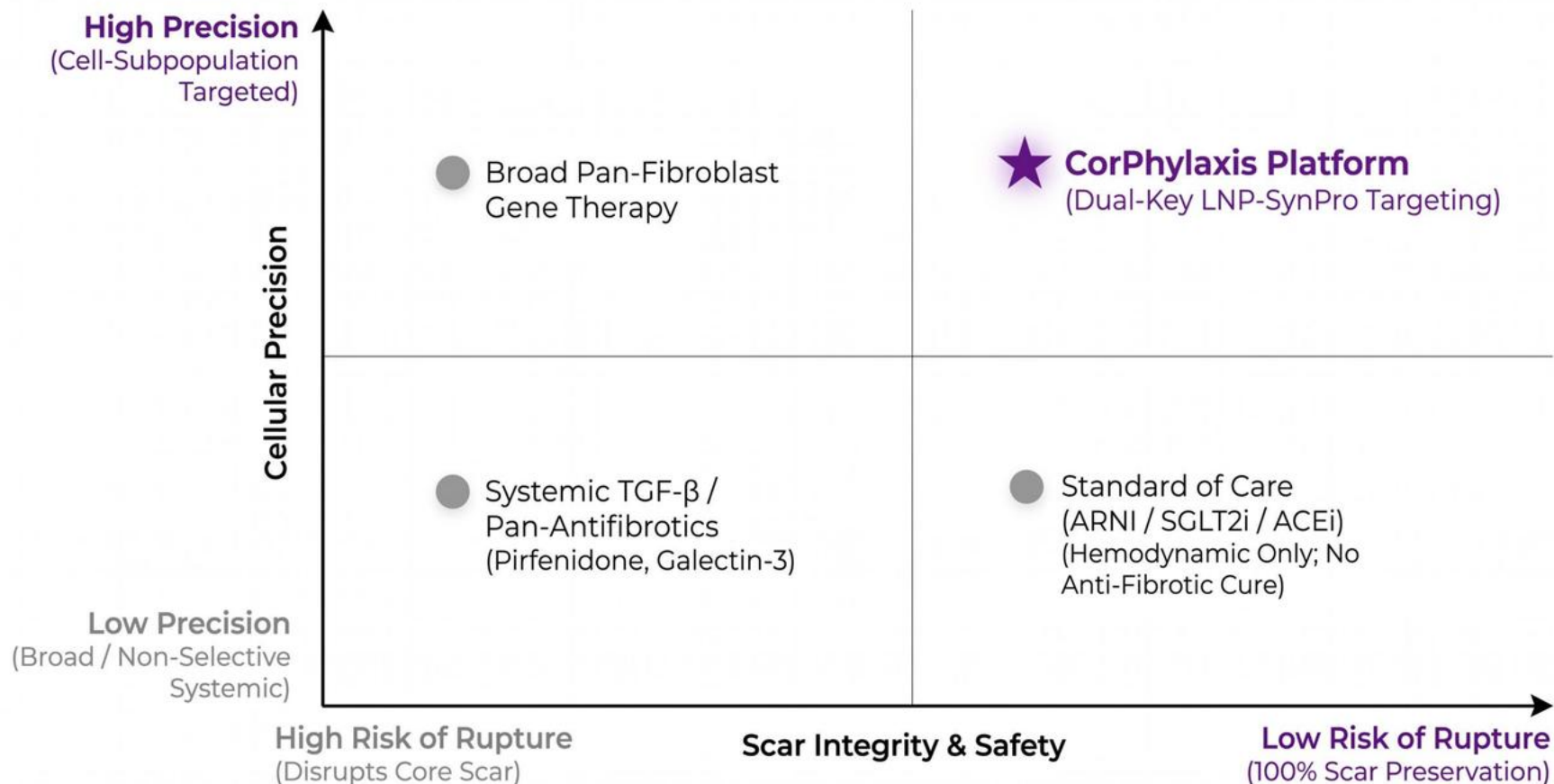
Multi-Pronged Precision Pipeline

Two genetic payloads designed for complete arrest of fibrosis expansion to the healthy heart regions, without disrupting the protective scar

Program	Asset & modality	Biological target	Therapeutic effect	Status
CPX-001	LNP-SynPro-Target Z-DR (mRNA / Protein Expression)	Overexpression of degradation resistant Target Z (anti-fibrotic)	Represses fibrosis by reprogramming the invasive fibroblasts in viable heart surrounding the scar.	Preclinical validation
CPX-002	LNP-SynPro-shRNA-Target X (RNA Interference)	Inhibition of Target X (the motility engine in the invasive fibroblasts)	Paralyzes motility of the invasive fibroblasts, halting their invasion of viable heart surrounding the scar.	3D culture system PoC
CPX-003	Our dual-key LNPs adapted with a new synthetic promotor to target fibroblast subsets in Pulmonary Fibrosis.			Target discovery

CorPhylaxis Competitive Positioning

Zero Direct Competition: Our platform and assets are based on our **proprietary discovery**. This breakthrough enables us to specifically target damage-causing cells while preserving reparative, beneficial cells—a **first-in-class** capability.



CorPhylaxis is a differentiated platform for high-precision anti-fibrotic therapy without compromising the **structural integrity** of the healing heart.

Why our approach is optimal, and why others fail?

Regenerative pipelines fail because growing new heart muscle **cannot stop** the active expansion of fibrosis & structural damage = **building while the house is still on fire.**

Therapeutic Criterion	 Stem Cell Therapies	 Cardiomyocyte Proliferation	 Angiogenesis (Vessel Formation)	CorPhylaxis (Targeted Anti-Fibrotic)
Actively halts acute tissue destruction	✗	✗	✗	✓ (Prophylactic action)
Prevents border-zone fibrosis expansion	✗	✗	✗	✓ (Paralyzes invasion)
Preserves core scar integrity (Rupture Safe)	⊖ (Neutral)	⊖ (Neutral)	⊖ (Neutral)	✓
Proven long-term structural effectiveness	✗ (Unknown/Fails due to ongoing fibrosis)	✗ (Unknown/Fails due to ongoing fibrosis)	✗ (Does not stop scarring)	✓ (Permanent structural arrest)

Our prophylactic anti-fibrotic therapy **actively halts tissue destruction** in acute heart attacks.

Business Model & Commercial Strategy

Capturing maximum enterprise value through internal clinical development and non-dilutive platform partnerships.

Internal clinical development: advancing CPX-001 & CPX-002 through IND and early clinical trials to retain full global commercial rights.

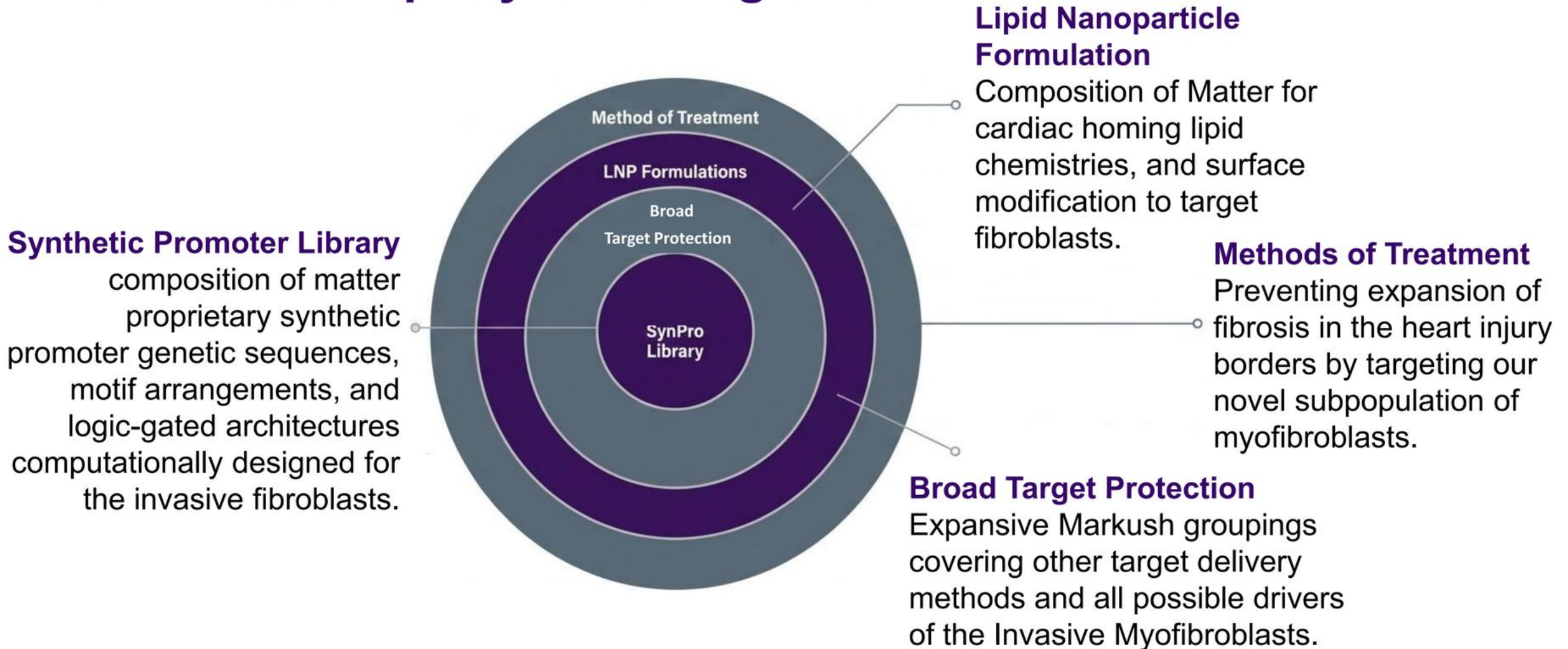
Near-Term: Establishing CorPhylaxis as a de-risked, multi-asset company to unlock premium Series A/B valuations.

Long-Term: Capturing commercial multi-billion-dollar revenues in the US market.

Non-Dilutive Platform Partnerships: Strategic out-licensing for non-core indications (e.g., pulmonary and hepatic fibrosis).



Intellectual Property & Strategic Moat



**The two fibroblast cell subpopulations and their genetics are
our proprietary data, based on our discovery.**

A Multi-Billion Dollar US Market for Post-MI Heart Failure

First-in-class precision genetic medicine addressing a white space.

US TAM: 781,600 annual surviving MI patients × \$75,000 per prophylactic course.

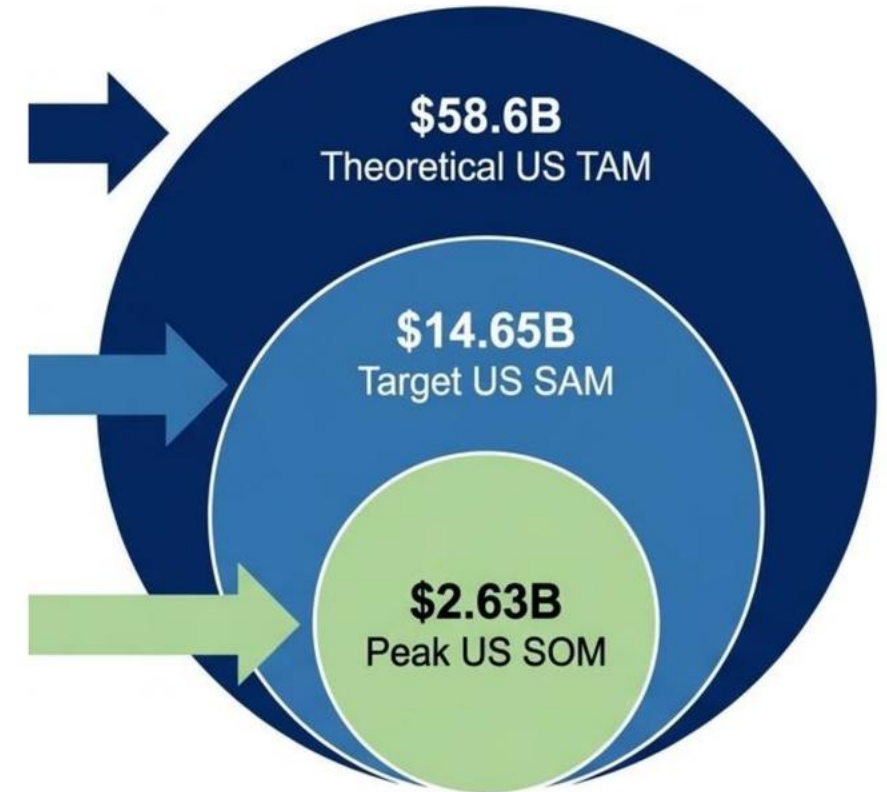
US SAM: High-Risk MI Survivors.

Deliberate Constraint: Strictly filters for the ~25% of patients (195,400) destined for heart failure. This targeted clinical focus is required to meet ICER value-based price thresholds (\$100k-\$150k /QALY) and secure commercial payer support.

US SOM Commercial Logic:

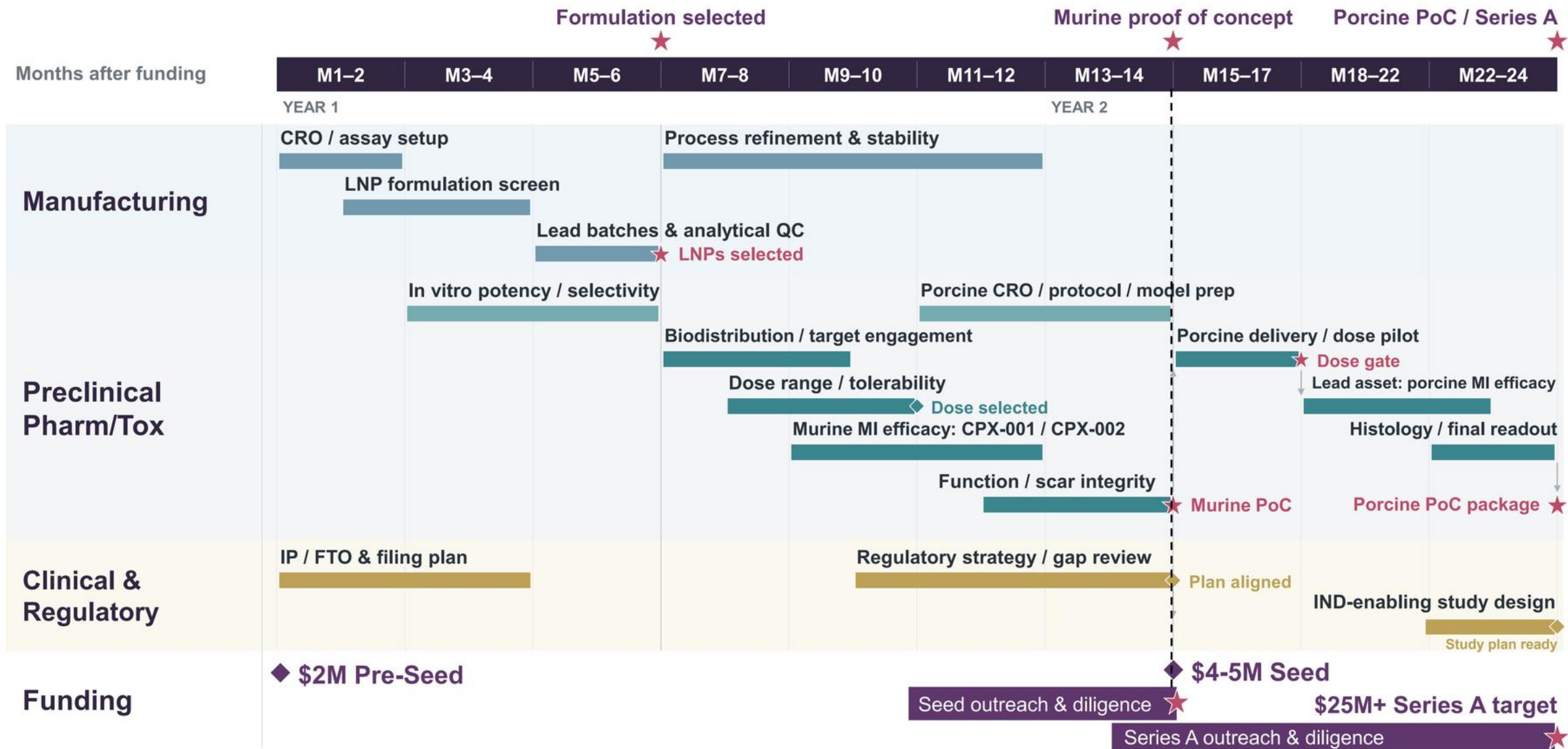
18% market penetration (~35,170 treated patients). Adoption accounts for strict inpatient adoption curves, driven strategically by securing Medicare add-on payments (NTAP) to offset hospital costs, and by helping hospitals avoid severe Medicare financial penalties for 30-day readmissions (HRRP).

ICER = Institute for Clinical and Economic Review;
QALY = Quality-Adjusted Life Year;
NTAP = New Technology Add-on Payment;
HRRP = Hospital Readmissions Reduction Program.



Timeline to Series A Inflection Point

Estimated 24-month development plan for CPX-001 and CPX-002



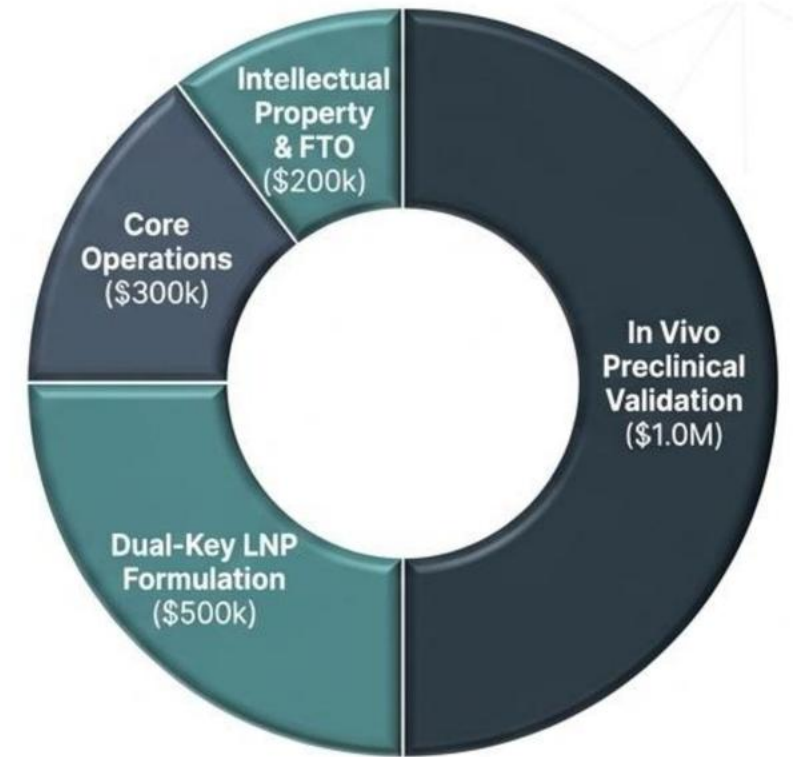
Post-Series A: IND-enabling toxicology, GMP clinical supply, IND submission and Phase 1 entry

Financing & use of funds

Raising \$2M post-money SAFE to transition our preclinically validated targets into genetic medicines, for a premier Series A.

Use of Funds:

- **25% (\$500k)** Formulation of lipid nanoparticle (LNP) delivering our key assets. In vitro and in vivo validation of target specificity and delivery efficiency.
- **50% (\$1.0M)** In vivo functional validation of the two key assets delivered in LNPs, using preclinical surgical model of heart attack.
- **15% (\$300k)** Key early hires, CRO services, and executive project management.
- **10% (\$200k)** Intellectual property & FTO: Securing our independent chain of title by transitioning provisional filings to international PCTs.



Leadership & Scientific Pedigree



Anis Hanna, MD Founder & CEO

- Cardiovascular physician-scientist and computational biologist.
- Research Assistant Professor of a world-renowned post-MI heart failure laboratory.
- Recipient of multiple American Heart Association awards.



Polina Alieva Founder & COO

- Deep industrial expertise in managing and scaling wet lab as Genomics Operational Manager.
- Single-cell and spatial biology target discovery expert.

Actively assembling a world-class cardiovascular industry advisory board.



Join us in transforming heart failure care

Current Traction

Award-winning science

Katz Award and Innovative Project Award from the AHA.



Preclinical and human evidence

Lead targets supported by preclinical data and human genetic evidence.

Circulation

Selected as a Top 15 venture

Deerfield–Cure MEHA II.



Proprietary biological discovery

Disease-driving fibroblast subpopulations and mechanisms for selective targeting.



Founder–market fit

Cardiovascular physician-scientist leadership paired with experience scaling genomics operations.

Join our early investors,
ahead of key milestones.

\$2M post-money SAFE



Thank you!

Corphylaxis.com

Anis Hanna: ahanna@corphylaxis.com
+1(929) 291-0966

Polina Alieva: palieva@corphylaxis.com
+1(917) 773-4650

contact@corphylaxis.com