Corporate Presentation

Heal the heart with innovative science

We are a clinical-stage life sciences company focused on the research and clinical development of anti-inflammatory and anti-fibrotic therapies for the treatment of heart disease

Cardiolrx.com

October 2024

NASDAQ: CRDL

TSX: CRDL

CardiolTherapeutics

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This presentation contains forward-looking information, within the meaning of applicable securities laws, that relate to Cardiol's current expectations and views of future events ("forward-looking information" or "forward-looking statements"). In some cases, these forward-looking statements can be identified by words or phrases such as "market opportunity", 'revenue opportunity" "may", "might", "will", "expect", "anticipate", "estimate", "intend", "plan", "indicate", "seek", "believe", "predict", or "likely", or the negative of these terms, or other similar expressions intended to identify forward-looking information. Statements containing forward-looking information are not historical facts. Cardiol has based these forward-looking statements on its current expectations and projections about future events and financial trends that it believes might affect its financial condition, results of operations, business strategy, and financial needs. These forward-looking statements include, among other things, statements relating to: Cardiol's business strategy; Cardiol's plans and objectives; the ability for Cardiol's oral and subcutaneous formulation to deliver cannabinoids and other anti-inflammatory drugs to inflamed tissue in the heart; the expected medical benefits, viability, safety, efficacy, and dosing of cannabidiol; Cardiol's milestones; Cardiol's Phase II study of CardiolRx in recurrent pericarditis and Cardiol's intention to report full results of the Phase II Study in Q4 2024; Cardiol's Phase II international trial of CardiolRx in acute myocarditis; Cardiol's plans to initiate a Phase II/III international trial of CardiolRx on pericarditis recurrence following cessation of interleukin-1 blocker therapy in Q4 2024; Cardiol's plans to conduct a Phase III trial of CardiolRx; Cardiol's intention to seek Orphan Drug Designation and orphan medicine designations for CardiolRx for acute myocarditis and recurrent pericarditis; Cardiol's capitalization and its ability to achieve corporate milestones into 2026; Cardiol's development of CRD-38 for use in heart failure; and the molecular targets and mechanism of action of our product candidates. Forward-looking information contained herein reflects the current expectations or beliefs of Cardiol based on information currently available to it and is subject to a variety of known and unknown risks and uncertainties and other factors that could cause the actual events or results to differ materially from any future results, performance or achievements expressed or implied by the forward-looking information. These risks and uncertainties and other factors include the risks and uncertainties referred to in Cardiol's Annual Report on Form 20-F dated April 1, 2024 for the fiscal year ended December 31, 2023, available on SEDAR at sedar.com and EDGAR at sec.gov, including the risks and uncertainties associated with product development and commercialization, regulatory approvals and clinical studies, and uncertainties in predicting treatment outcomes. These risks, uncertainties and other factors should be considered carefully, and investors should not place undue reliance on the forward-looking information. Any forward-looking information speaks only as of the date on which it is made and, except as may be required by applicable securities laws, Cardiol disclaims any intent or obligation to update or revise such forward-looking information, whether as a result of new information, future events or results or otherwise. Although Cardiol believes that the expectations reflected in the forward-looking information are reasonable, they do involve certain assumptions, risks, and uncertainties and are not (and should not be considered to be) guarantees of future performance. It is important that each person reviewing this presentation understands the significant risks attendant to the operations of Cardiol.

Developing Novel Therapeutic Approaches for Patients with Underserved Heart Diseases

Late-stage Programs in Rare Diseases

CardiolRx™, lead small molecule oral drug candidate, granted FDA orphan drug designation (ODD) for treatment of pericarditis and ODD eligible for treatment of acute myocarditis.

Broad Exclusivity Protection

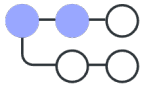
Comprehensive intellectual property portfolio. Focused on rare diseases eligible for FDA and EMA orphan drug and medicine designations with 7–10-year marketing exclusivity.

Actionable Drug Target

Modulation of inflammasome activation reduces the release of mediators responsible for inflammation and fibrosis contributing to myopericardial disease and heart failure.

Leadership

Experienced Management team, Board of Directors, and Scientific Advisory Board, with extensive expertise in developing therapeutics for inflammatory heart disease.



Innovative Research

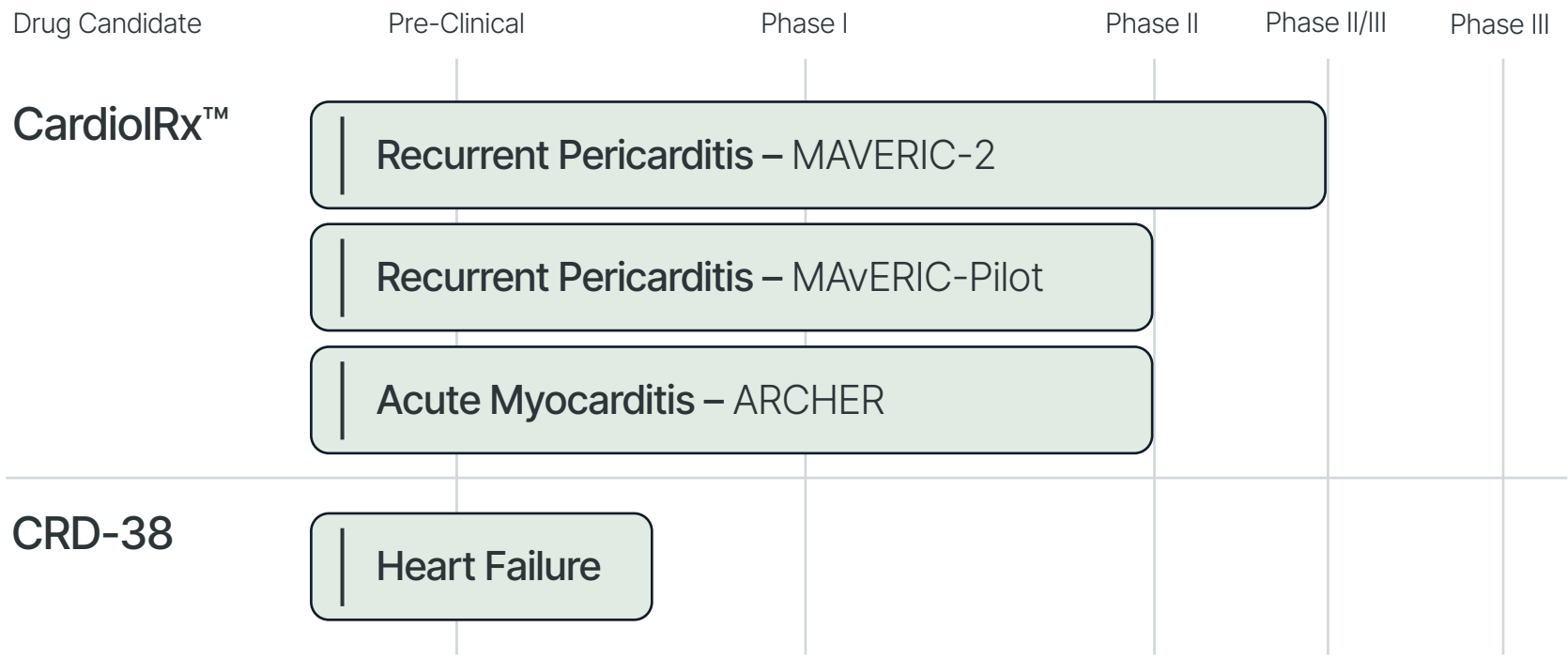
Advancing the development of CRD-38, a novel proprietary subcutaneously administered pharmaceutical intended for use in heart failure.

Strong Financial Position

Debt-free and well-capitalized to achieve corporate milestones into 2026.

Product Pipeline

Lead oral drug candidate, CardiolRx™, is being clinically developed for use in rare heart diseases. CRD-38 is a novel subcutaneously administered drug formulation intended for use in heart failure.



- FDA Orphan Drug Designation (ODD) granted to CardiolRx™ for the treatment of pericarditis, which includes recurrent pericarditis.
- CardiolRx™ eligible for FDA ODD in acute myocarditis and EMA orphan medicine designations for recurrent pericarditis and acute myocarditis.

CardiolRx™ (cannabidiol) oral solution; CRD-38 (cannabidiol) injection, for subcutaneous administration.

CardiolRx™ and CRD-38

Targeting intracellular inflammatory signalling pathways

CardiolRx™ (cannabidiol) oral solution 100mg/mL

- Lead small molecule drug candidate in clinical development for use in rare heart disease.
- Pharmaceutically manufactured under cGMP*.
- World-class manufacturing partnership allowing scalability from clinical development to commercialization.

CRD-38 (cannabidiol) for subcutaneous injection

- Novel small molecule drug formulation in IND-enabling stage to support clinical development in heart failure.
- Pharmaceutically manufactured under cGMP*.
- Target pharmacokinetic profile: lower dose of drug and less frequent administration, while achieving greater effect.

Cannabidiol shown to attenuate multiple intracellular inflammatory signaling pathways, including inhibiting activation of the NLRP3 inflammasome, known to play an important role in the development and progression of inflammation and fibrosis associated with pericarditis, myocarditis, and heart failure.

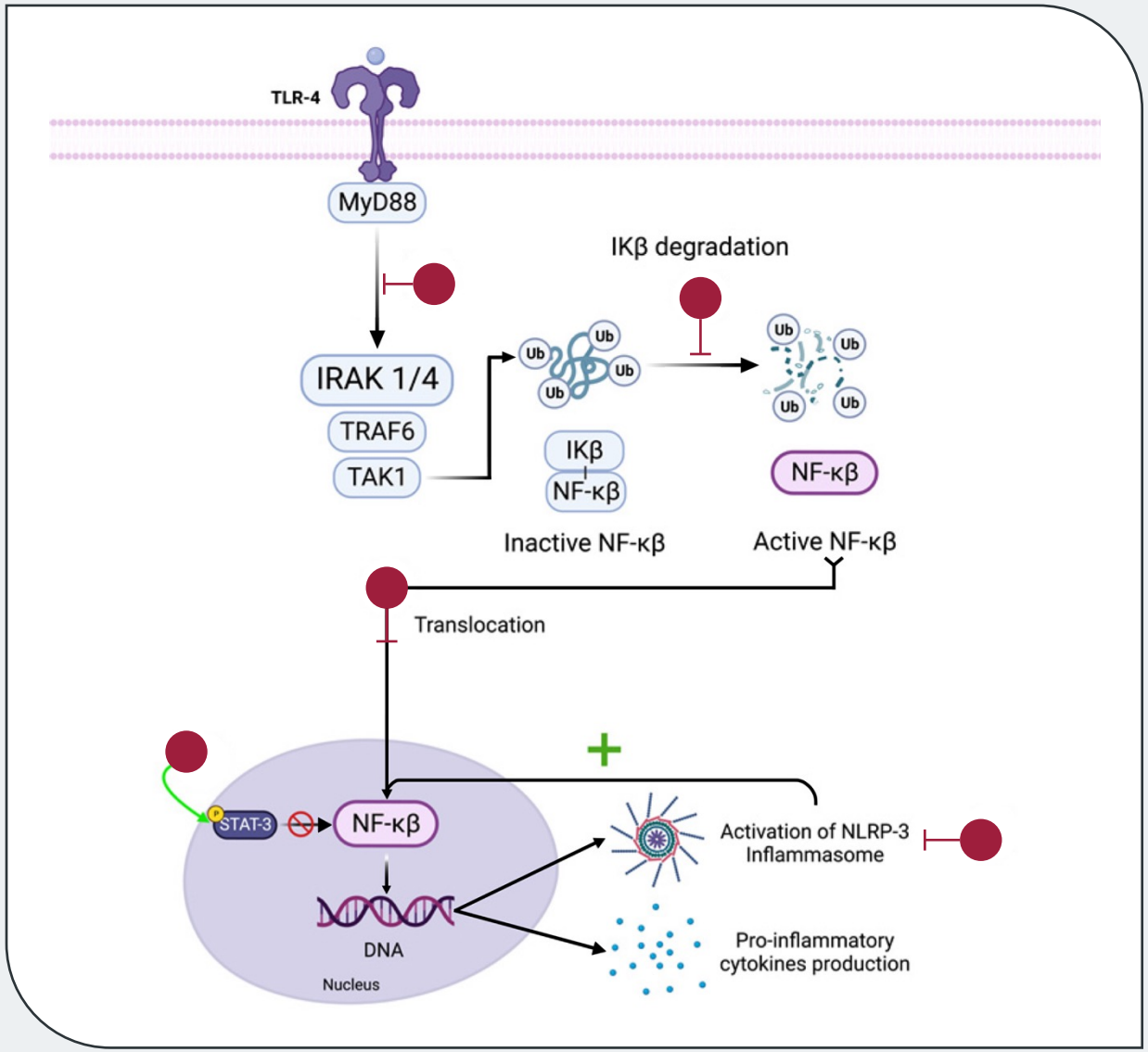
*Assures the highest standards for product purity, consistency, and stability.

Mechanism of Action

CardiolRx™ and CRD-38 [●] attenuate multiple intracellular inflammatory signaling pathways, including inhibiting activation of the NLRP3 inflammasome, known to play an important role in the development and progression of the inflammation associated with pericarditis, myocarditis, and heart failure.

Pathophysiology Targeted in Heart Diseases of Interest

- Viral infection or insult to the heart results in aberrant activation of the inflammasome signaling pathway.
- NLRP3 inflammasome protein components are activated; induces release of pro-inflammatory cytokines (e.g., IL-1α, IL-1β, IL-6, & IL-18).
- Results in endothelial dysfunction, impaired vasodilation, and activated leukocytes.
- Leads to pericardial damage, increased pericardial space and thickness, and a cyclic release of IL-1α.



Modified from Martinez Naya N, Kelly J, Corna G, Golino M, Abbate A, Toldo S. Molecular and Cellular Mechanisms of Action of Cannabidiol. *Molecules*. 2023;28(16):5980. Published 2023 Aug 9. doi:10.3390/molecules28165980.
Martinez Naya N, Kelly J, Corna G, *et al*. An Overview of Cannabidiol as a Multifunctional Drug: Pharmacokinetics and Cellular Effects. *Molecules*. 2024;29(2):473. Published 2024 Jan 18. doi:10.3390/molecules29020473

Key Global Research and Clinical Collaborators

Working together with world-class researchers and clinicians at international centers of excellence and leveraging their expertise in drug development, experimental execution, inflammation and fibrosis, the treatment of cardiovascular diseases, and clinical trial protocol design. The collaborations provide optimal advice and knowledge platform in pursuit of Cardiol's purpose: heal the heart with innovative science.

MAvERIC-Pilot Study

Impact of CardiolRx™ on Recurrent Pericarditis

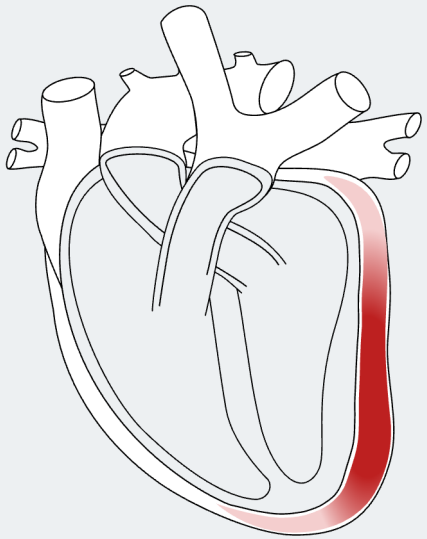
A Phase II multi-center, open-label study assessing the tolerability, safety, and efficacy of CardiolRx™ on recurrent pericarditis.

ClinicalTrials.gov Identifier: NCT05494788

Recurrent Pericarditis

Pericarditis refers to inflammation of the pericardium (the membrane, or sac, surrounding the heart) that leads to fluid accumulation (effusion) and pericardial thickening.

- Recurrent pericarditis is the reappearance of symptoms after a symptom-free period of at least 4–6 weeks following an index acute episode.
- Symptoms include debilitating chest pain, shortness of breath, and depression.
- Associated with an increase in C-reactive protein (CRP) – a commonly used clinical marker of inflammation.
- Quality of life and physical activity adversely affected, with severe cases requiring emergency department visits or hospitalizations.
- Current first- and second-line management consist of NSAIDs, colchicine, and corticosteroids.
- One FDA-approved therapy: $270,000/year LP (rilonacept) primarily used for ≥3 recurrences.
- 160,000 (based on 40/100,000[(1)]) annual U.S. prevalence; includes 38,000 with a recurrence.



4.7 – 6.2 years

The average duration of recurrent pericarditis in patients who are difficult to treat.

18,000

Pericarditis hospitalizations per year in the Untied States (based on 5.4/100,000).

38,000

Number of recurrent pericarditis patients in the United States annually.

(1) Luis *et al.*, *Cur Med Res Op 2022*;38(8):1385-1389

Recurrent Pericarditis – Clinical Need & Opportunity

Clinical Need

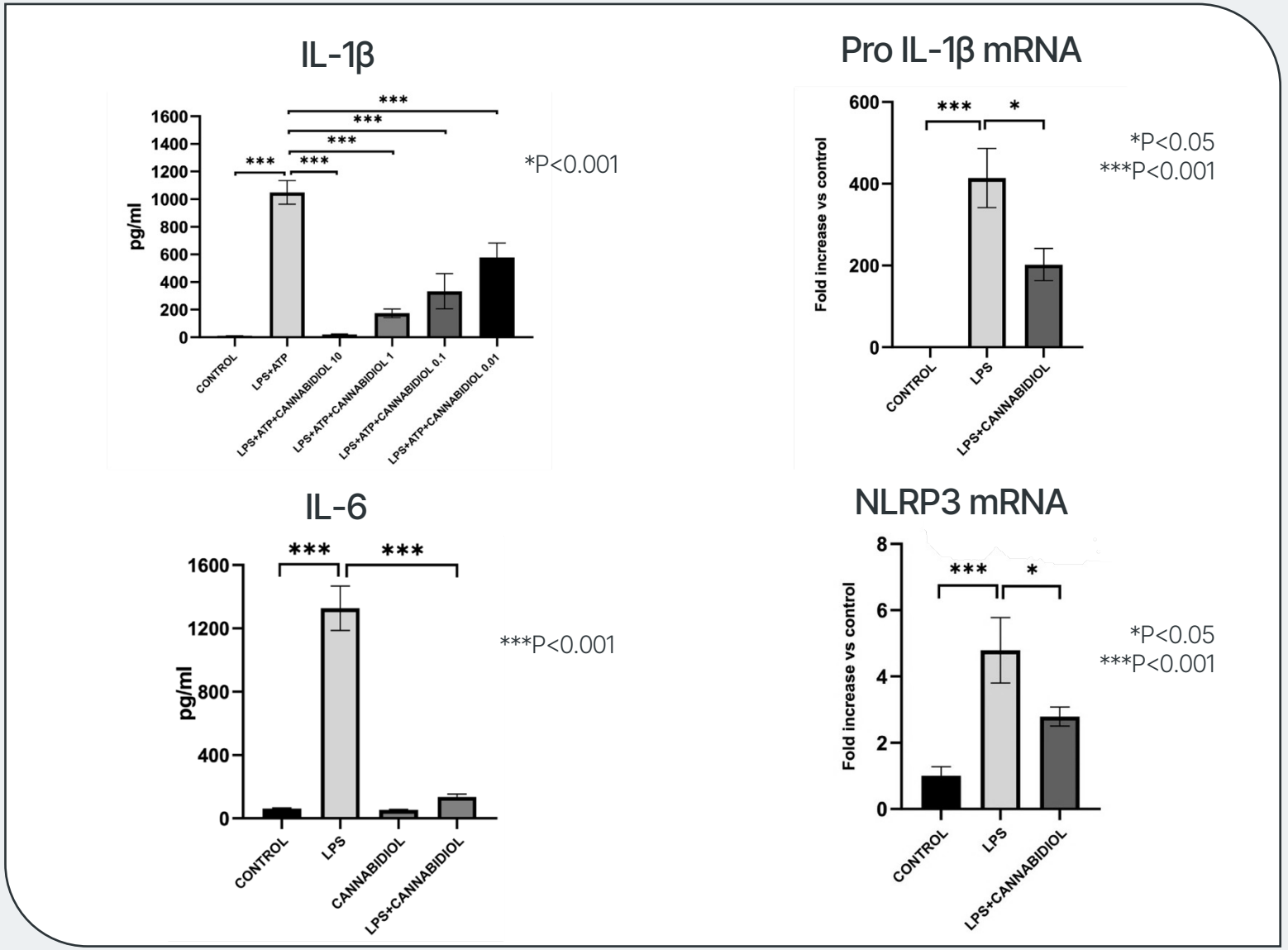
- A segment of pericarditis patients suffer from a high recurrence burden and prolonged disease duration with disease symptoms persisting for several years, despite currently available off-label therapies and approved biologic (US only).
- Patients with high recurrence burden would derive benefit from an oral, non-immunosuppressant treatment that could resolve pericarditis symptoms and prevent future episodes.

CardiolRx™ Opportunity

- Potential second-line use for patients with pericarditis recurrences, inadequate response to current therapy, and persistent underlying disease:
  - Prior to administration of immunosuppressants including corticosteroids, anakinra, rilonacept; and
  - For patients who are colchicine resistant/intolerant and/or immunosuppressant dependent.

Significant Reduction of Multiple *in vitro* Parameters Demonstrated Pre-clinically

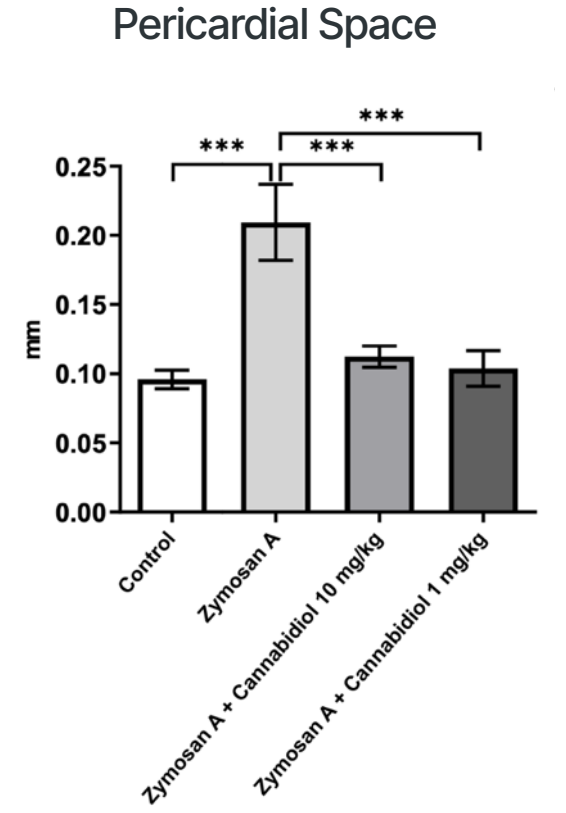
IL-1β & IL-6 Secretion Inhibited; Transcription Levels of pro-IL-1β & NLRP3 Reduced.

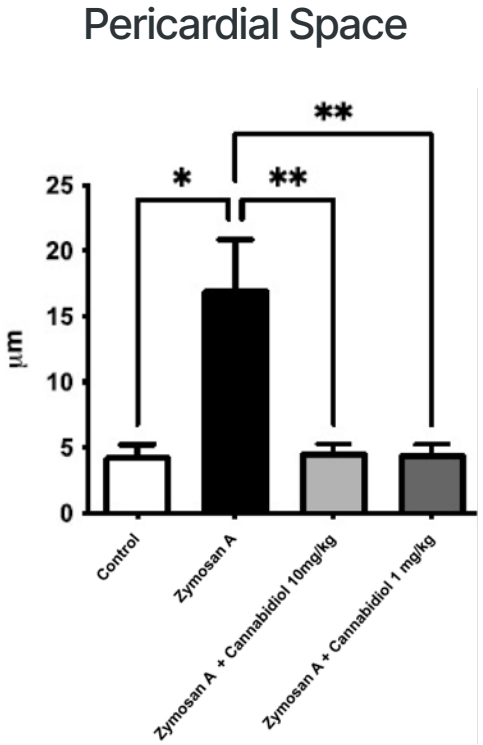


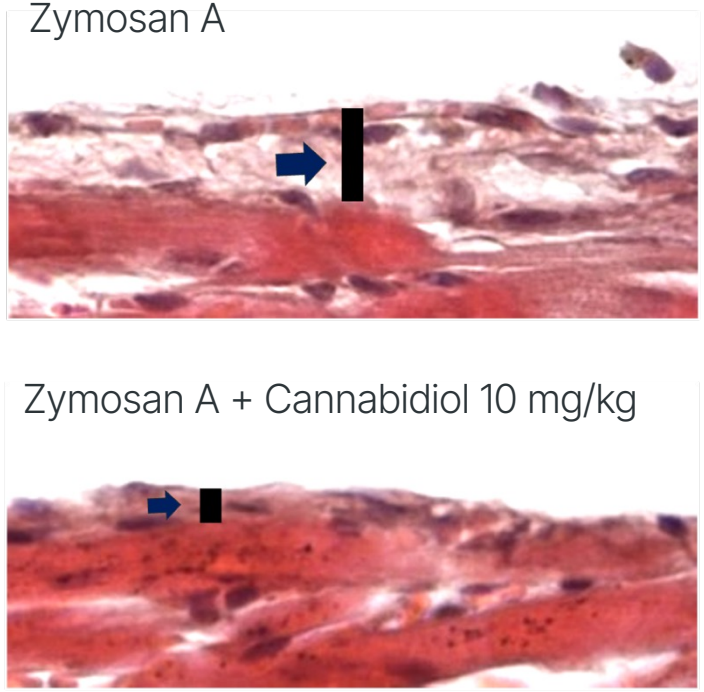
American Heart Association.

Martinez-Naya N *et al. Circ Res 2022*; 131:e169-e190.

Significant Reduction in Pericardial Effusion & Pericardial Thickness Demonstrated *in vivo* Pre-clinically







Pericardial thickness of heart sections stained with hematoxylin and eosin.

American Heart Association.

Martinez-Naya N *et al. Circ Res 2022*; 131:e169-e190.

Advisors and Key Investigators for the MAvERIC-Pilot Study

Allan Klein, MD, CM

Study Chair

Director, Center for the Diagnosis and Treatment of Pericardial Diseases, and Professor of Medicine, Heart, Vascular and Thoracic Institute, Cleveland Clinic.

Paul Cremer, MD

Departments of Medicine and Radiology, Northwestern University, and Multimodality Cardiac Imaging and Clinical Trials Unit, Bluhm Cardiovascular Institute.

Antonio Abbate, MD, PhD

Ruth C. Heede Professor of Cardiology, School of Medicine, and Department of Medicine, Division of Cardiovascular Medicine – Heart and Vascular Center, University of Virginia.

Allen Luis, MBBS, PhD

Co-Director of the Pericardial Diseases Clinic, Associate Professor of Medicine, Department of Cardiovascular Medicine, at Mayo Clinic Rochester Minnesota.

Stefano Toldo, PhD

Associate Professor of Medicine, Department of Medicine, Cardiovascular Medicine at University of Virginia.

Stephen Nicholls, MBBS, PhD

Program Director, Victorian Heart Hospital, Director, Monash Victorian Heart Institute, and Professor of Cardiology, Monash University, Melbourne.

Phase II MAvERIC-Pilot Study

CardiolRx™ for Recurrent Pericarditis

Multi-center, open-label pilot study to assess the safety and tolerability of CardiolRx™ during the resolution of a pericarditis recurrence, evaluate improvement in objective measures of disease, and assess the feasibility of weaning concomitant background therapy while taking CardiolRx™.

27

Patients Enrolled
Open-label design

8

Clinical Sites
United States

Primary Efficacy Endpoint

- Change in patient-reported pericarditis pain using an NRS* from baseline to 8 weeks.

Secondary Endpoints

- Percentage of patients with normalized CRP at both 8 and 26 weeks.
- Time to CRP normalization (for patients with CRP ≥1.0 mg/dL at baseline).
- CRP change from baseline to 26 weeks.
- NRS pain score at 26 weeks.
- Freedom from pericarditis recurrence.

*The NRS is a validated clinical tool used across multiple conditions with acute and chronic pain, including previous studies of recurrent pericarditis.

MAvERIC-Pilot Study Sites (Principal Investigators)

- Cleveland Clinic (Allan Klein, MD)
- Mayo Clinic (S. Allen Luis, MD)
- University of Vermont Medical Center (Tracey Haggerty, MD)
- Minneapolis Heart Institute Foundation (David Lin, MD)
- Pima Heart and Vascular Clinical Research (Thomas Waggoner, DO)
- Virginia Commonwealth University Health (Georgia Thomas, MD)
- MedStar Health Research Institute (Syed Haider, MD)
- Massachusetts General Hospital (Jonathan Salik, MD)

Key Inclusion/Exclusion Criteria for the MAvERIC-Pilot Study

Inclusion:

- Male or female patients aged ≥18 years.
- Diagnosis of at least 2 episodes of RP*.
- At least 1 day with pericarditis pain score ≥4 on the 11-point NRS within the prior 7 days†.
- CRP ≥1.0 mg/dL OR evidence of pericardial inflammation assessed by delayed pericardial hyperenhancement on cardiac MRI‡.
- Currently receiving NSAIDs, colchicine, or corticosteroids for treatment of pericarditis (in any combination) in stable doses.

Exclusion:

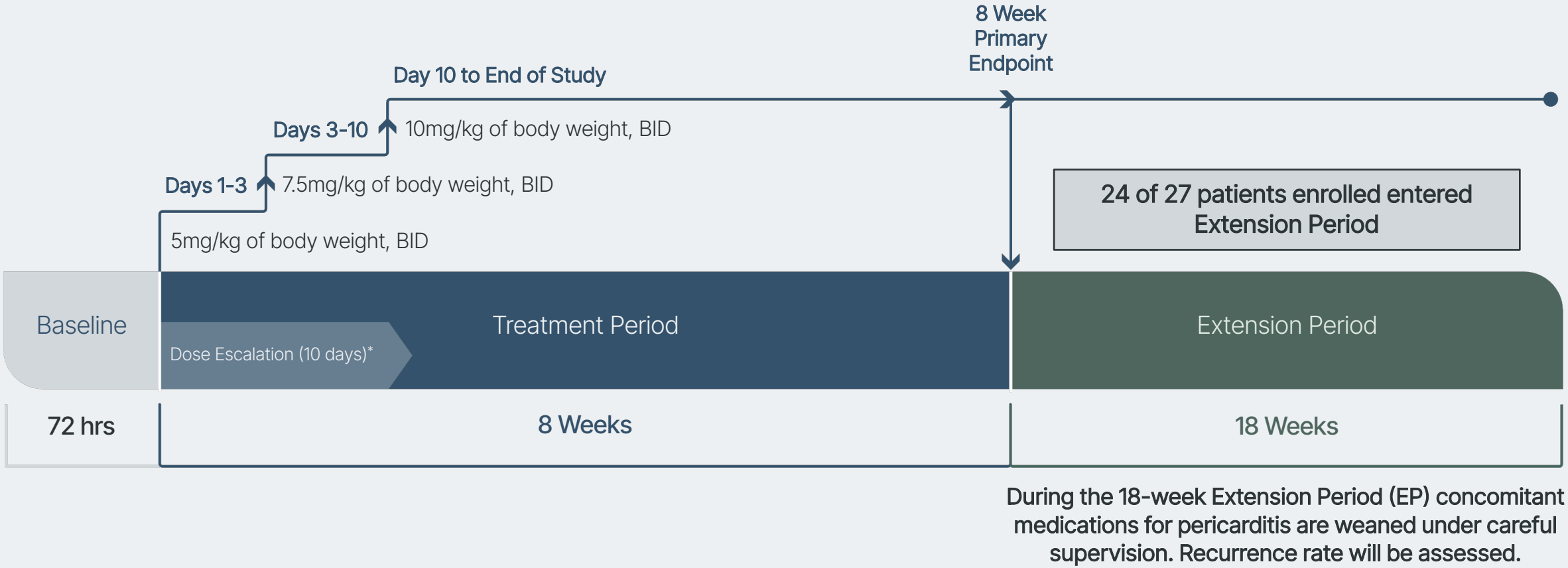
- Diagnosis of pericarditis secondary to the following etiologies: tuberculosis; neoplastic, purulent or radiation etiology; post-thoracic blunt trauma; myocarditis.
- Prior history of sustained ventricular arrhythmias or QT interval prolongation.
- Current diagnosis of cancer (except for non-melanoma skin cancer).
- Immunosuppressive therapy with any of the following treatments: rilonacept; anakinra; canakinumab; methotrexate; azathioprine; cyclosporine; IVIG.

*Diagnosis of pericarditis according to the 2015 European Society of Cardiology (ESC) Guidelines for the Diagnosis and Management of Pericardial Diseases (Adler *et al.* 2015): At least two of: (i) Pericarditic chest pain; (ii) Pericardial rub; (iii) New widespread ST-segment elevation, or PR-segment depression according to electrocardiogram (ECG) findings; (iv) Pericardial effusion (new or worsening).
†Numerical rating scale (NRS) is a validated 11-point instrument used to assess patient-reported pericarditis pain. Zero represents 'no pain at all' whereas the upper limit of 10 represents 'the worst pain ever possible'.
‡MAvERIC-Pilot to enroll only symptomatic patients, with or without a raised CRP.

MAvERIC-Pilot Study Design

Phase II open-label pilot study at 8 US centers.

25 Patient enrollment target → 27 enrolled → 24 progressed to EP on CardiolRx™.



During the 18-week Extension Period (EP) concomitant medications for pericarditis are weaned under careful supervision. Recurrence rate will be assessed.

*If the next higher dose is not tolerated, it will be reduced to the previous tolerated dose.

Previous Episodes of Pericarditis in MAvERIC-Pilot Patients at Baseline

Prior to the qualifying episode for entry into the study.

# Previous Episodes of Pericarditis	CardiolRx™ (N = 27)
2 episodes	9 (33%)
3 episodes	9 (33%)
4 episodes	4 (15%)
>4 episodes	5 (19%)

Prior recurrences is a strong predictor of future recurrences as 20-40% of pts. with ≥2 recurrences can expect subsequent episodes:

- Klein A *et al.* US Database Study of Clinical Burden and Unmet Need in Recurrent Pericarditis. *J Am Heart Assoc*. 2021;10(15):e01895
- Cremer PC *et al.* Complicated Pericarditis: Understanding Risk Factors and Pathophysiology to Inform Imaging and Treatment. *J Am Coll Cardiol*. 2016;68(21):2311-2328. doi:10.1016/j.jacc.2016.07.785

Phase III trial subject to full Phase II MAvERIC-Pilot study outcomes and regulatory authorization. Data from the Study is not necessarily indicative of results from a future Phase III trial which may be conducted.

MAvERIC-Pilot Study Topline Efficacy Data

CardiolRx™ resulted in a clinically meaningful reduction in pericarditis pain in symptomatic patients following 8 weeks of treatment.

Primary Endpoint

Change in patient-reported pericarditis pain using NRS* from baseline to 8 weeks.

n=27	Baseline	Week 8	Difference†	rilonacept	Mean Difference†
Mean	5.8	2.1	-3.7	Phase II (n=9)	-3.8 (EoTP‡)
Range	4.0 – 10.0	0.0 – 6.0		Phase III (n=82)	-3.9 (Week 8)

*Numerical rating scale (NRS) is a validated 11-point instrument used to assess patient-reported pericarditis pain. Zero represents 'no pain at all', whereas the upper limit of 10 represents 'the worst pain ever possible'.

†Negative value indicates an improvement in NRS pericarditis pain.

‡End of Treatment Period (~Week 6/8).

Rilonacept trial references:

- Klein AL, Lin D, Cremer PC, *et al.* Efficacy and safety of rilonacept for recurrent pericarditis: results from a phase II clinical trial. *Heart*. Published online November 23, 2020. doi:10.1136/heartjnl-2020-317928.
- Klein AL, Imazio M, Cremer P, *et al.* Phase 3 Trial of Interleukin-1 Trap Rilonacept in Recurrent Pericarditis. *N Engl J Med*. 2021;384(1):31-41. doi:10.1056/NEJMoa2027892.

Phase III trial subject to full Phase II MAvERIC-Pilot study outcomes and regulatory authorization. Data from the Study is not necessarily indicative of results from a future Phase III trial which may be conducted.
Differences exist between the studies referenced. When interpreting their outcomes, consideration should be given, but not limited, to the following: investigational product and its biological effects; study design, duration, and eligibility criteria; number of enrolled patients; baseline demographics and concomitant medications; patients past medical history.

MAvERIC-Pilot Study Topline Efficacy Data

80% of symptomatic patients and a CRP ≥1.0 mg/dL at baseline achieved CRP normalization* by 8 weeks.

Secondary Endpoint

Percentage of patients with CRP normalization‡ at 8 weeks (for patients with CRP ≥1.0 mg/dL at baseline).

Number of Patients with CRP ≥1.0 mg/dL at Baseline	10 (of 27)
Number of Patients with CRP ≤0.5 mg/dL at Week 8	8
Percentage of Patients with CRP Normalization at Week 8	80.0%

*CRP normalization defined as CRP ≤0.5 mg/dL.

Phase III trial subject to full Phase II MAvERIC-Pilot study outcomes and regulatory authorization. Data from the Study is not necessarily indicative of results from a future Phase III trial which may be conducted.

MAvERIC-Pilot Study Topline Efficacy Data

CardiolRx™ resulted in a clinically meaningful reduction in CRP (-5.39) following 8 weeks of treatment.

C-reactive Protein (CRP)

Change in CRP for those patients with ≥1 mg/dL at BL.

	Baseline	Week 8	Difference*	rilonacept	Mean Difference
Mean	5.71	0.31	-5.39	Phase II	-4.24 (EoTP)
				Phase III (n=82)	-3.48 (Week 6)

Baseline CRP values: Phase II = 4.62; Phase III = 3.7.

*Negative value indicates an improvement in CRP.

Rilonacept trial references:

- Klein AL, Lin D, Cremer PC, *et al.* Efficacy and safety of rilonacept for recurrent pericarditis: results from a phase II clinical trial. *Heart*. Published online November 23, 2020. doi:10.1136/heartjnl-2020-317928.
- Klein AL, Imazio M, Cremer P, *et al.* Phase 3 Trial of Interleukin-1 Trap Rilonacept in Recurrent Pericarditis. *N Engl J Med*. 2021;384(1):31-41. doi:10.1056/NEJMoa2027892.

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Differences exist between the studies referenced. When interpreting their outcomes, consideration should be given, but not limited, to the following: investigational product and its biological effects; study design, duration, and eligibility criteria; number of enrolled patients; baseline demographics and concomitant medications; patients past medical history.

Summary: MAvERIC-Pilot Study Topline Efficacy Data

Full data to be reported during an oral presentation at the American Heart Association (AHA) Scientific Sessions 2024 on November 18th, 2024.

- 89% (24/27) of patients enrolled in MAvERIC-Pilot have progressed from the 8-week Treatment Period into the 18-week Extension Period; strongly suggests CardiolRx™ has been well tolerated.
- CardiolRx™ resulted in a clinically meaningful reduction in pericarditis pain in symptomatic patients following 8 weeks of treatment.
- 80% of symptomatic patients and a CRP ≥1.0 mg/dL at baseline achieved CRP normalization by 8 weeks.
- The positive primary endpoint data from the MAvERIC-Pilot study is anticipated to support advancing to a Phase III trial of CardiolRx™ in pericarditis patients.

Phase III trial subject to full Phase II MAvERIC-Pilot study outcomes and regulatory authorization. Data from the Study is not necessarily indicative of results from a future Phase III trial which may be conducted.

MAVERIC-2 Trial

Impact of CardiolRx™ on Recurrent Pericarditis

A Phase II/III multi-national, double-blind, randomized, placebo-controlled trial to assess the impact of CardiolRx™ on pericarditis recurrence following cessation of interleukin-1 blocker therapy.

MAVERIC-2 Trial

CardiolRx™ for Recurrent Pericarditis

Multi-national, double-blind, randomized, placebo-controlled trial to assess the impact of CardiolRx™ on pericarditis recurrence following cessation of interleukin-1 (IL-1) blocker therapy.

110

Patients to be Enrolled

~20

Clinical Sites
United States and Europe

Anticipated to initiate in Q4 2024.

Primary Efficacy Endpoint

- Number of patients (percentage) free from a new episode of recurrent pericarditis at 24 weeks

Secondary Endpoint

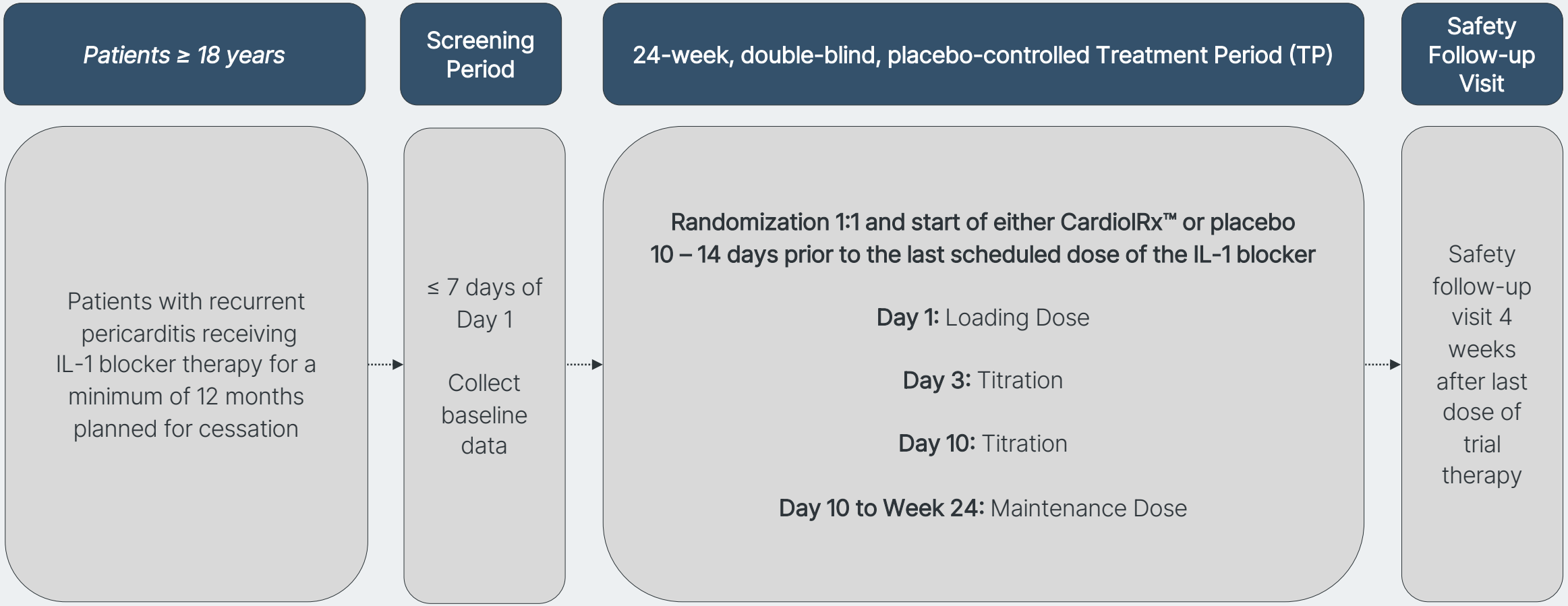
- Median time to a new episode of pericarditis recurrence.

Exploratory Endpoints

- Change in NRS and CRP from baseline to weeks 8 and 24.

*The NRS is a validated clinical tool used across multiple conditions with acute and chronic pain, including previous studies of recurrent pericarditis.

MAVERIC-2 Study Design



MAVERIC Clinical Development Program

CardiolRx™ for the Treatment of Pericarditis to Prevent Recurrences

Orphan Drug Designation Population = 160K

Initial Acute Pericarditis Episode = 122K

Recurrent Pericarditis = 38K (includes 24K with 1st recurrence + 14K with multiple recurrences*)

Initial Acute Pericarditis Episode = 122K		Recurrent Pericarditis = 38K (includes 24K with 1st recurrence + 14K with multiple recurrences*)			
1st Line	**2nd Line**	**1st Line**	**2nd Line**	**3rd Line**	**Pericardiectomy**
Aspirin or NSAID + colchicine	Low dose corticosteroid	Aspirin or NSAID + colchicine	Low dose corticosteroid	Interleukin-1 blockers (rilonacept; anakinra)	
		MAvERIC-Pilot		MAVERIC-2	
		MAVERIC-3**			
• colchicine resistant/intolerant • corticosteroid dependent		• prior to administration of IL-1 blocker therapy • colchicine resistant/intolerant • corticosteroid dependent		• following cessation of IL-1 blocker therapy	

*Among patients with ≥2 recurrence: median disease duration ~ 3 years and 1/3 patients still impacted at 5 years.
**In final planning stage. Subject to applicable regulatory approvals and final study design.

ARCHER Trial

Impact of CardiolRx™ on Acute Myocarditis

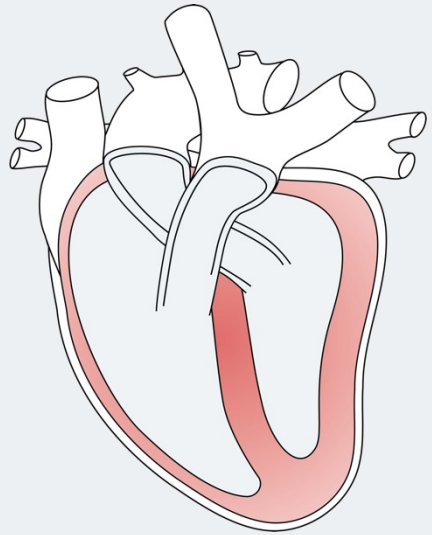
A Phase II multi-national, double-blind, randomized, placebo-controlled trial designed to study the safety and tolerability of CardiolRx™, as well as its impact on myocardial recovery in patients presenting with acute myocarditis.

ClinicalTrials.gov Identifier: NCT05180240

Acute Myocarditis

Inflammatory condition of the heart muscle (myocardium) often resulting from viral infection, and characterized by chest pain, impaired heart function, arrythmias, and conduction disturbances.

- An important cause of acute and fulminant heart failure in young adults and a leading cause of sudden cardiac death in people <35 years of age.
- Complications include heart failure, cardiogenic shock, unstable heart rhythm, cardiac arrest, and/or organ failure; severe cases can lead to ventricular assist device, extracorporeal oxygenation, or heart transplant.
- 46,000 (based on 14.4/100,00)[(1)]) annual U.S. prevalence, up to 30% develop a chronic inflammatory dilated cardiomyopathy[(2)(3)].
- No FDA- or EMA-approved drug for treatment of acute myocarditis.



37 years

Average age of patient hospitalized with acute myocarditis in the United Kingdom.

4 – 6%

In-hospital mortality as a percentage of acute myocarditis admissions.

32,400

Number of deaths worldwide due to myocarditis in 2019.

(1) Basso C. *N Engl J Med.* 2022;387(16):1488-1500. (2) Tschöpe *et al. Circ Res* 2019;124:1568-1583. (3) Tang 2021: https://emedicine.medscape.com/article/156330-print

Acute Myocarditis – Clinical Need & Opportunity

Clinical Need

- An FDA- and EMA-approved therapy indicated for the treatment of acute myocarditis:
  - Reduces the risk of progression.
  - Improves myocardial edema and function.
  - Improves signs/symptoms including chest pain, arrythmias, and shortness of breath.
  - Improves functional status.
  - Reduces the time restricted from physical activity.

CardiolRx™ Opportunity

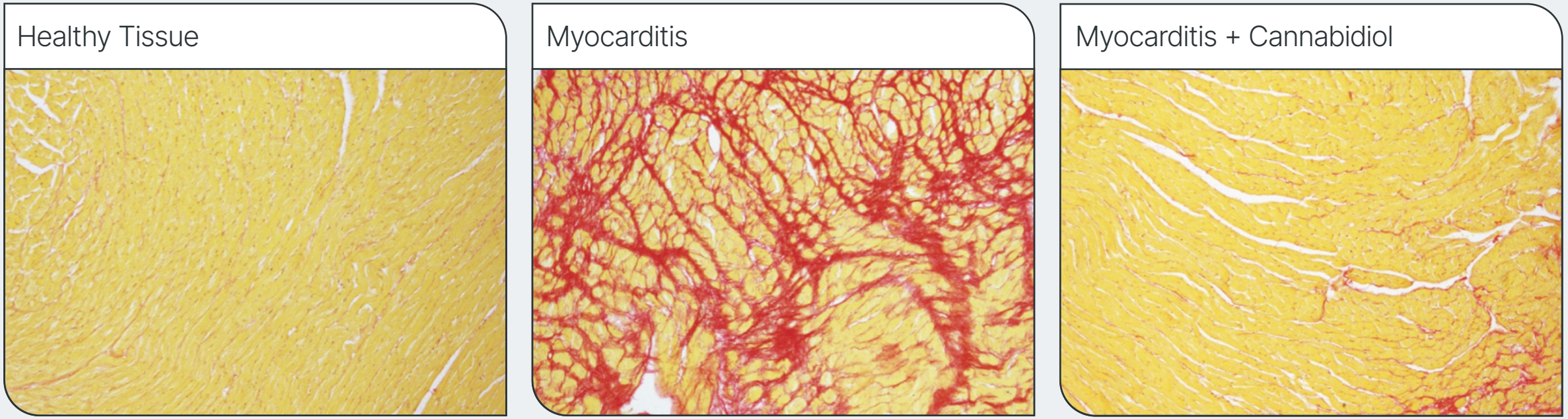
- Potential first-line use for uncomplicated low/intermediate risk profile patients with acute myocarditis:
  - For use in combination with guideline recommended conventional therapy.
  - For use in patients with unresolved myocarditis, to treat the persistent, low-level inflammation and cardiac remodeling that is associated with progression to dilated cardiomyopathy (DCM).
  - For patients with myopericarditis.

Complicated acute myocarditis = LV systolic dysfunction, acute HF, ventricular arrhythmias, advanced atrioventricular conduction disturbance, or cardiogenic shock. Uncomplicated acute myocarditis = preserved LVEF, no ventricular arrythmias & no low cardiac output syndrome. Low risk profile = chest pain only, normal ECG (no arrythmias), normal echo (LVEF≥50%), no autoimmune risk factors. Intermediate risk profile = mild symptoms of acute HF, arrythmias absent or present, LVEF low (30-40%) or moderately low (41-49%).

Cannabidiol Attenuates Myocarditis-induced Fibrosis

Effect of Cannabidiol on Heart Fibrosis

Sections of Heart Tissue – Fibrosis



Representative images of Sirius red-stained LV myocardium sections. Magnification: 100x.

Lee W-S *et al.* (2016). *Mol. Med.* 22, 136-146

Steering Committee for the ARCHER Trial

Dennis M. McNamara, MD

Chair

Professor of Medicine at the University of Pittsburgh. He is also the Director of the Heart Failure/Transplantation Program at the University of Pittsburgh Medical Center.

Arvind Bhimaraj, MD

Specialist in Heart Failure and Transplantation Cardiology and Associate Professor of Cardiology, Institute for Academic Medicine at Houston Methodist and at Weill Cornell Medical College, NYC.

Peter Liu, MD

Chief Scientific Officer and Vice President, Research, of the University of Ottawa Heart Institute, and Professor of Medicine and Physiology at the University of Toronto and University of Ottawa.

Matthias Friedrich, MD

Full Professor within the Departments of Medicine and Diagnostic Radiology at McGill University in Montreal, and Chief, Cardiovascular Imaging at the McGill University Health Centre.

Yaron Arbel, MD

Cardiologist and Director of the CardioVascular Research Center (CVRC) at the Tel Aviv "Sourasky" Medical Center.

Leslie T. Cooper, Jr., MD

Co-Chair

General cardiologist and the Chair of the Mayo Clinic Enterprise Department of Cardiovascular Medicine, as well as chair of the Department of Cardiovascular Medicine at the Mayo Clinic in Florida.

Wai Hong Wilson Tang, MD

Advanced Heart Failure & Transplant Cardiology specialist at the Cleveland Clinic. Director of the Cleveland Clinic's Center for Clinical Genomics; Research Director, and staff cardiologist in the Section of Heart Failure and Cardiac Transplantation Medicine in the Sydell and Arnold Miller Family Heart & Vascular Institute.

Carsten Tschöpe, MD

Professor of Medicine and Cardiology and Vice Director of the Department of Internal Medicine and Cardiology, University Medicine Berlin.

Edimar Bocchi, MD

Serves as the Head of Heart Failure Clinics and Heart Failure Team at Heart Institute (Incor) of Hospital das Clinicas of São Paulo University Medical School, Associate Professor of São University Medical School, São Paulo, Brazil.

Mathieu Kerneis, MD, PhD

Interventional cardiologist at Pitié Salpêtrière Hospital (Sorbonne University).

Phase II ARCHER Trial

CardiolRx™ for Acute Myocarditis

Multi-national, double-blind, randomized, placebo-controlled trial designed to study the safety and tolerability of CardiolRx™, as well as its impact on myocardial recovery in patients presenting with acute myocarditis.

100

Randomized Patients

50 to CardiolRx™,
50 to Placebo

34

Clinical Sites

United States, Canada, France, Brazil, and Israel

Primary Efficacy Endpoints*

- Extracellular volume (ECV).
- Global longitudinal strain (GLS).

Secondary Efficacy Endpoint*

- Left ventricular ejection fraction.

*Measured by cardiac magnetic resonance imaging at 12 weeks post randomization

ARCHER Trial Design

Trial has achieved 100% of the target patient enrollment of 100 patients.

- Phase II multi-center, double-blind, placebo-controlled trial.
- Participants screened within 10 days of a diagnostic cardiac magnetic resonance and randomized 1:1 to receive either CardiolRx™ or placebo.
- ≤10-day Screening/Baseline Period.
- CardiolRx™ dose titrated from 2.5 mg/kg up to 10 mg/kg of body weight BID over the first 4 weeks of the treatment period.
- 10 mg/kg BID (or the highest tolerated dose) will be taken for the remainder of the treatment period.
- 12-week treatment period, 1-week follow-up.

Heart Failure

CRD-38 is a novel proprietary subcutaneously administered drug formulation of cannabidiol intended for use in heart failure.

Heart Failure

A chronic, progressive syndrome caused by a structural and/or functional cardiac abnormality in which the heart is unable to pump enough blood to meet the body's needs.

- Patients experience shortness of breath, rapid heart rate, and edema, resulting in reduced exercise capacity, limitations undertaking simple daily activities, and frequent hospitalizations.
- Treatment goals: improve symptoms, patient clinical status, functional capacity, and quality of life; prevent hospitalizations; reduce mortality.
- 6 million people >20 years of age are living with heart failure in the U.S., number projected to increase to 8 million by 2030; and total cost estimated at >$30 billion; by 2030, projected to increase to $69.8 billion.
- 1.9 million physician visits, 414,000 emergency department visits, and up to 1.2 million hospitalizations annually.
- Developing CRD-38 as a potential therapeutic strategy in heart failure care*.

$108 billion

Estimated economic cost of heart failure globally in 2012.

3.3 million

Annual number of physician visits with a primary diagnosis of heart failure in the United States.

53%

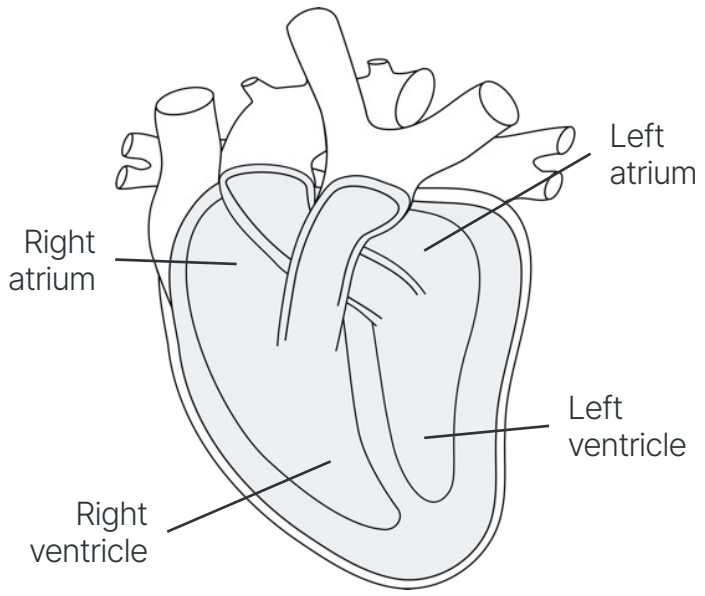
The 5-year overall mortality rate for patients with heart failure.

*The Company is pursuing IND-enabling activities to support the clinical evaluation of CRD-38.
Sources: 2022 ACC/AHA/HFSA Guideline for the Management of Heart Failure; AHA Heart Disease and Stroke Statistics-2023 Update; 2021 ESC Guidelines for the Diagnosis and Treatment of Acute and Chronic Heart Failure.

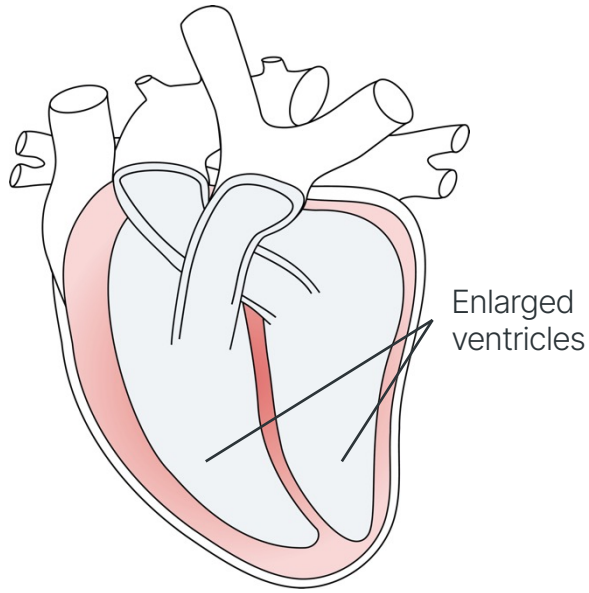
Types of Heart Failure

- Systolic heart failure, also referred to as heart failure with reduced ejection fraction (HFrEF), occurs when the heart loses its ability to contract normally and is unable to pump with sufficient force to push enough blood into circulation.
- Diastolic heart failure, also referred to as heart failure with preserved ejection fraction (HFpEF), occurs when the heart loses its ability to relax normally (because the myocardium has become fibrotic and stiff) and cannot properly fill with blood during the resting period between each beat.

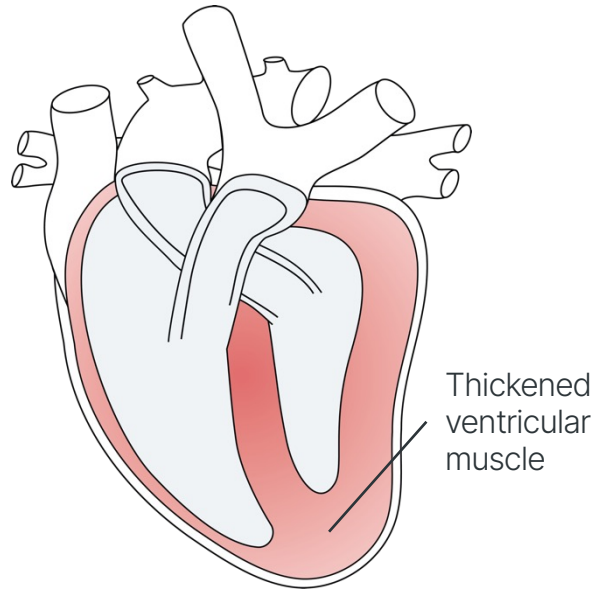
Normal Heart



Systolic Heart Failure

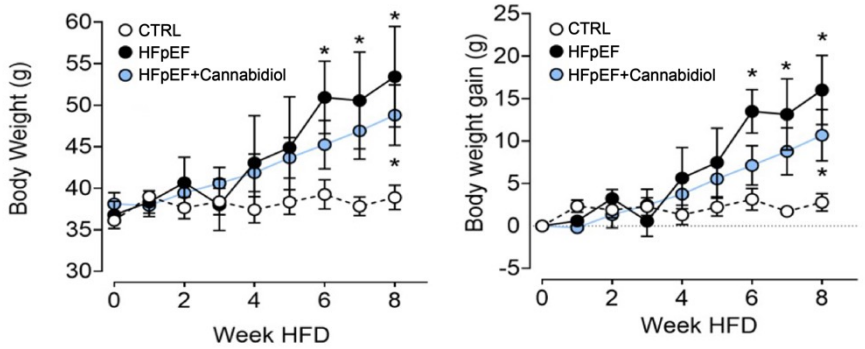


Diastolic Heart Failure

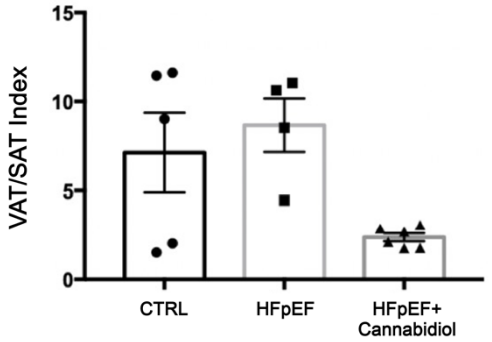


Subcutaneous CRD-38 Administered Cannabidiol as a Potential Treatment For Heart Failure With Preserved Ejection Fraction

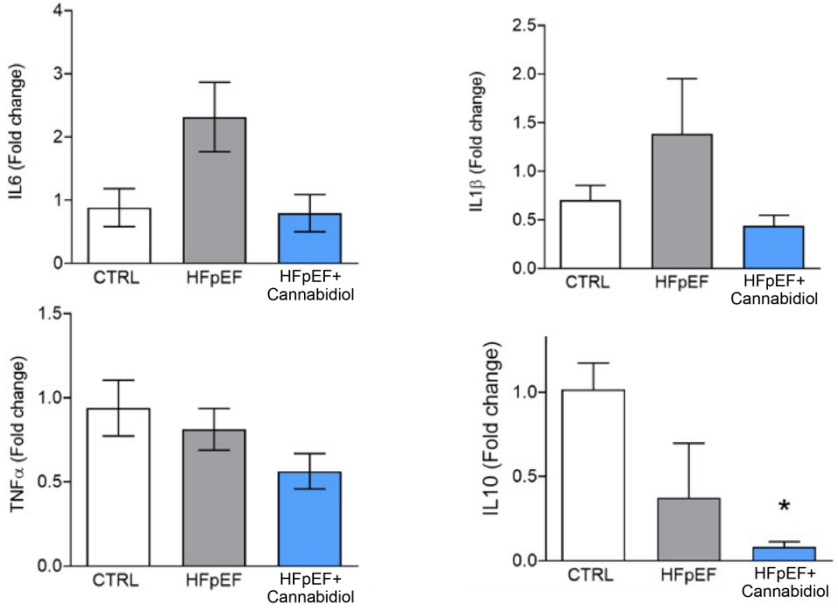
Reduces Body Weight Gain



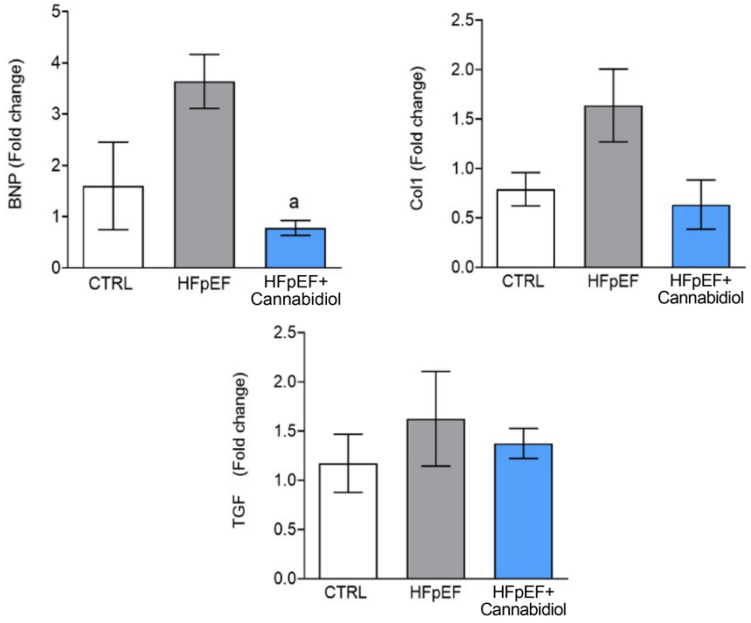
Reduced Visceral to Subcutaneous Fat Ratio



Prevents Inflammation



Prevents Cardiac Remodeling

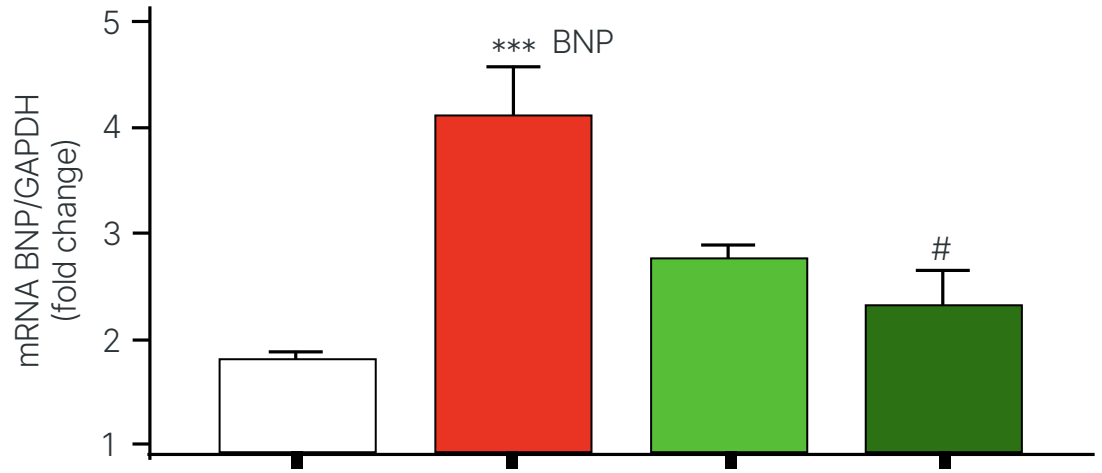


Lozano O *et al.* Heart Failure Society of America Annual Scientific Meeting 2023: ePoster Viewing Session III. October 7, 2023.

Cardioprotective Properties of Subcutaneous Cannabidiol Formulation

Demonstrated in a Non-ischemic Model of Heart Failure

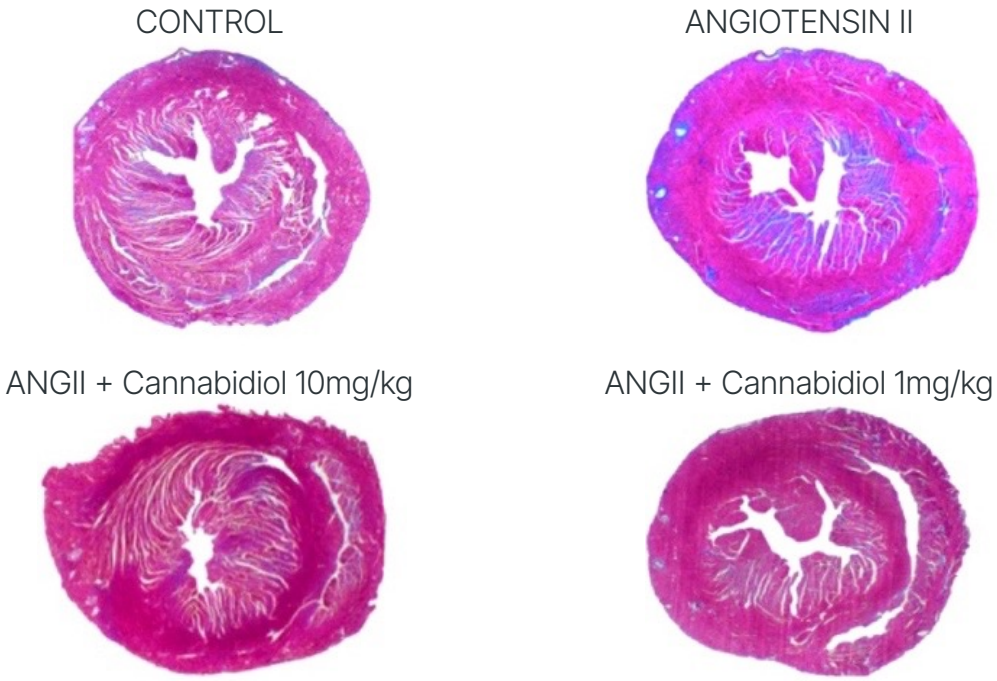
Measurements of BNP mRNA expression in heart tissue



HF	-	+	+	+
Cannabidiol 1mg/kg	-	-	+	-
Cannabidiol 10mg/kg	-	-	-	+

Groups of animals with angiotensin II-induced heart failure treated with cannabidiol at 1 or 10 mg/kg show attenuated BNP increase. Raised BNP levels reflect cardiac stretch indicative of heart failure.

Heart Sections Stained with Masson's Trichome



The effect of cannabidiol at 10 or 1 mg/kg on angiotensin-induced fibrosis. Fibrotic tissue stains blue, demonstrating cannabidiol prevents fibrosis in this model of non-ischemic cardiomyopathy.

Lozano O *et al.*, *JACC 75, no. 11* (March 2020): 705.

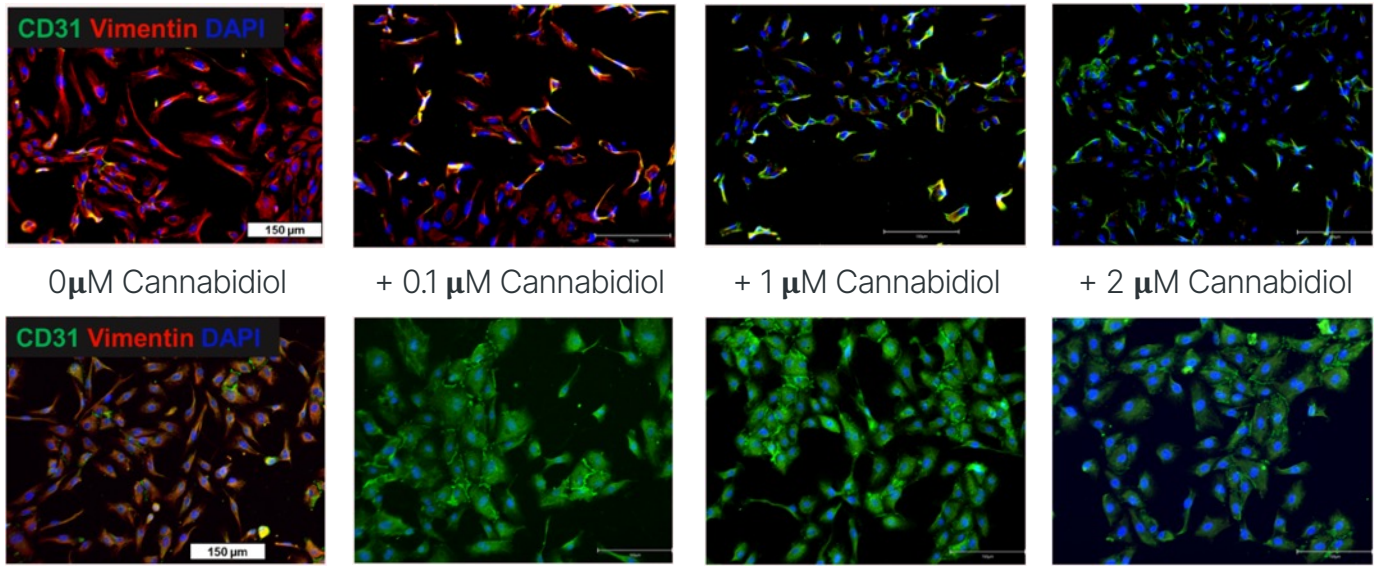
Cannabidiol Inhibits and also Promotes Reversal of Mechanisms Leading to Cardiac Fibrosis in a Dose Dependent Manner

Protects cardiac function and exhibits an anti-fibrotic effect, possibly mediated by endothelial-to-mesenchymal transition ("EndoMT").

Top Panel: Cannabidiol was added during 4 days of EndoMT induction; the transition process was inhibited in a dose dependent manner as exhibited by a reduced expression of vimentin through IF.

Bottom Panel: Cannabidiol added to EndoMT transitioned calls (after Day 4 of EndoMT) and IF performed on Day 8; Cannabidiol was shown to reduce vimentin expression k suggesting reversal of EndoMT *in vitro*.

Immunoflourescence (IF) images of HUVEC cells



EndoMT was induced in HUVEC cells (a model system to study human endothelial cell function) using L-NAME and ANG-II. EndoMT characterized through IF for endothelial (CD31) and mesenchymal (vimentin) markers.

Krishnamoorthi MK *et al. J Card Fail.* 2023;29(4):567

Near-term Milestones

1 MAVERIC Program in Recurrent Pericarditis

- Full MAvERIC-Pilot Phase II results Q4 2024.
- Initiate MAVERIC-2 Phase II/III trial Q4 2024.
- Initiate MAVERIC-3 Phase III trial*.

2 ARCHER Trial in Acute Myocarditis

- Report ARCHER Phase II topline data early 2025.

3 Subcutaneous Administered CRD-38

- Complete IND-enabling studies.
- Initiate Phase I clinical program.

*Subject to full Phase II MAvERIC-Pilot study outcomes and regulatory authorization.

Management Team

David Elsley, MBA

President and Chief Executive Officer

Founder and former President and CEO of Vasogen Inc. More than 30 years' experience developing, financing, and managing corporate development of life sciences companies.

Chris Waddick, CPA, CMA, MBA

Chief Financial Officer

Thirty years of experience in financial and executive roles in the biotechnology and energy industries, former Chief Financial Officer and Chief Operating Officer of Vasogen Inc.

Andrea B. Parker, MSc, PhD

Senior Director of Clinical Operations

Clinical Epidemiologist with more than 30 years' experience in clinical trials design, management, and execution in industry and academic settings. Former Chief Scientific Officer at Peter Munk Cardiac Centre, University Health Network.

Anne Tomalin, BA, BSc, RAC

Director of Regulatory and Quality

Founder of CanReg Inc. and TPIreg, regulatory firms previously sold to Optum Insight and Innomar Strategies, respectively. An expert in regulatory affairs in Canada, the United States, and Europe.

Andrew Hamer, MBChB

Chief Medical officer and Head of Research & Development

Thirty years of global life sciences industry, medical affairs, and cardiology practice experience. Served as Executive Director, Global Development Cardiometabolic at Amgen Inc. Principal or co-investigator for 40 multi-centre clinical trials.

Bernard Lim, MIET, CEng (UK)

Chief Operating Officer

Thirty years in the life sciences industry spanning biotechnology, diagnostics, medical devices, and high-technology. Founder and CEO of a highly successful drug delivery company that he led from R&D through to commercialization and its eventual acquisition by Eli Lily.

John A. Geddes, MBA

Vice President, Corporate Development

Over 25 years experience in the healthcare industry, comprising roles within pharmaceutical, biotechnology, clinical diagnostics, and life science research technology companies. Former Corporate Senior Director, Business Development at Luminex Corporation, a DiaSorin Company.

Board of Directors

Guillermo Torre-Amione, MD, PhD

Chairman

Professor of Cardiology at the Methodist Hospital Research Institute, Professor of Medicine at the Weill Cornell Medical College of Cornell University, and President of TecSalud. Former Chief of the Heart Failure Division and former medical director of Cardiac Transplantation at the Houston Methodist DeBakey Heart & Vascular Center.

Jennifer Chao, BA

Managing Partner of CoreStrategies Management

Over twenty-five years of experience in the biotech and life sciences industries focused primarily on finance and corporate strategy. Founded CoreStrategies Management in 2008 to provide transformational corporate and financial strategies to biotech/life science companies for maximizing core valuation.

Colin G. Stott, BSc (Hons)

Chief Operating Officer of Alterola Biotech Inc.

Thirty years' experience in pre-clinical and clinical development, with specific expertise in the development of cannabinoid-based medicines. Former Scientific Affairs Director, International and R&D Operations Director for GW Pharmaceuticals plc, a world leader in the development of cannabinoid therapeutics.

Teri Loxam, MBA

Chief Financial Officer of Compass Pathways

Over twenty-five years of experience in the pharmaceutical, life sciences, and TMT industries with diverse roles spanning strategy, investor relations, finance, and communications. Former Chief Financial Officer of Gameto, and Chief Operating Officer and Chief Financial Officer at Kira Pharmaceuticals.

David Elsley, MBA

President and Chief Executive Officer

Founder and former President and CEO of Vasogen Inc. More than 30 years' experience developing, financing, and managing corporate development of life sciences companies.

Peter Pekos, BSc, MSc

Founder of Dalton Pharma Services

Broad experience in the research, development, and commercialization of pharmaceuticals, products, and services.

Chris Waddick, CPA, CMA, MBA

Chief Financial Officer

Thirty years of experience in financial and executive roles in the biotechnology and energy industries, former Chief Financial Officer and Chief Operating Officer of Vasogen Inc.

Michael J. Willner, Esq.

Founder of Willner Capital, Inc.

Active and successful investor for +40 years, with a focus on the life sciences and pharmaceutical cannabinoid sectors. As both former Attorney and a Certified Public Accountant, he practiced real estate and corporate law at a prominent NYC based international law firm following his initial tenure as a tax accountant with an international accounting firm.

Scientific Advisory Board

Dr. Paul M. Ridker, MD, MPH

Senior Advisor

Director of the Center for Cardiovascular Disease Prevention, a translational research unit at Brigham and Women's Hospital (BWH), he is also the Eugene Braunwald Professor of Medicine at Harvard School of Medicine (HMS). Dr. Ridker's clinical interests include coronary artery disease and the underlying causes and prevention of atherosclerotic disease. He has authored of over 900 peer-reviewed publications and reviews, 64 book chapters, and six textbooks related to cardiovascular medicine. Notably, Dr. Ridker has been the Principal Investigator or Study Chairman of several large international trials that have demonstrated the role of inflammation in the genesis and management of coronary artery disease. He was awarded the Gotto Prize for Atherosclerosis Research from the International Atherosclerosis Society in 2021 and is an elected Member of the National Academy of Medicine (USA).

Dr. Bruce McManus, PhD, MD

Senior Advisor

Professor Emeritus, Department of Pathology and Laboratory Medicine, the University of British Columbia. He has served as CEO, Centre of Excellence for Prevention of Organ Failure (PROOF Centre), Director, UBC Centre for Heart Lung Innovation, and Scientific Director, Institute of Circulatory and Respiratory Health, CIHR. Dr. McManus' investigative passion relates to mechanisms, consequences, detection and prevention of injury and aberrant repair in inflammatory diseases of the heart and blood vessels. His life's scholarship is reflected in more than 400 original peer-reviewed publications, over 60 chapters, and several books. Dr. McManus received the prestigious Max Planck Research Award in 1991, was elected a Fellow of the Royal Society of Canada in 2002, was appointed a Member of the Order of Canada in 2018, and to the Order of British Columbia the following year.

Dr. Joseph A. Hill, MD, PhD

Senior Advisor

Professor of Internal Medicine and Molecular Biology, Chief of Cardiology at UT Southwestern Medical Center, Dallas, TX, and Director of the Harry S. Moss Heart Center. Dr. Hill holds both the James T. Willerson, M.D., Distinguished Chair in Cardiovascular Diseases, and the Frank M. Ryburn Jr. Chair in Heart Research. His research examines molecular mechanisms of structural, functional, metabolic, and electrophysiological remodeling in cardiac hypertrophy and heart failure. Dr. Hill was elected to the Association of American Professors and given the 2018 Research Achievement Award from the International Society for Heart Research. For the past seven years, Dr. Hill has been the Editor-in-Chief of the prestigious American Heart Association journal Circulation.

Developing Novel Therapeutic Approaches for Patients with Underserved Heart Diseases

Late-stage Programs in Rare Diseases

CardiolRx™, lead small molecule oral drug candidate, granted FDA orphan drug designation (ODD) for treatment of pericarditis and ODD eligible for treatment of acute myocarditis.

Broad Exclusivity Protection

Comprehensive intellectual property portfolio. Focused on rare diseases eligible for FDA and EMA orphan drug and medicine designations with 7–10-year marketing exclusivity.

Actionable Drug Target

Modulation of inflammasome activation reduces the release of mediators responsible for inflammation and fibrosis contributing to myopericardial disease and heart failure.

Leadership

Experienced Management team, Board of Directors, and Scientific Advisory Board, with extensive expertise in developing therapeutics for inflammatory heart disease.

Innovative Research

Advancing the development of CRD-38, a novel proprietary subcutaneously administered pharmaceutical intended for use in heart failure.

Strong Financial Position

Debt-free and well-capitalized to achieve corporate milestones into 2026.

Cardiol Therapeutics

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Cardiolrx.com

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investor.relations@cardiolrx.com

NASDAQ: CRDL
TSX: CRDL

Toronto,
Ontario