Cardiol Therapeutics Announces Positive Study Results Demonstrating Cardioprotective Effects of Subcutaneously Administered Cannabidiol in a Model of Heart Failure with Preserved Ejection Fraction

Results Demonstrate the Active Pharmaceutical Ingredient in Cardiol's Novel CRD-38 Formulation Attenuates Harmful Fat Distribution and Key Markers of Cardiac Inflammation and Remodelling

Data Presented at the Heart Failure Society of America Annual Scientific Meeting 2023

Toronto, ON – October 10, 2023 – Cardiol Therapeutics Inc. (**NASDAQ: CRDL**) (**TSX: CRDL**) ("**Cardiol**" or the "**Company**"), 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, announces positive study results from one of its international collaborating research centers demonstrating that subcutaneously administered cannabidiol, the active pharmaceutical ingredient in Cardiol's novel CRD-38 subcutaneous ("SUBQ") formulation, slowed increases in body weight and heart weight, and prevented increases in key cardiac inflammatory and remodelling markers in a model of heart failure with preserved ejection fraction ("HFpEF").

The study was presented by researchers from Tecnológico de Monterrey, Mexico ("TecSalud") at the Heart Failure Society of America Annual Scientific Meeting 2023 ("HFSA2023"). TecSalud is one of the Company's international collaborating research centers working towards the common goal of developing products to advance the treatment of heart diseases.

Dr. Andrew Hamer, Cardiol Therapeutics' Chief Medical Officer and Head of Research & Development commented, "The importance of this study lies in the clinical relevance of the pre-clinical model itself, which was developed to mirror the comorbidities of hypertension, obesity, and metabolic dysfunction common to patients with heart failure with preserved ejection fraction. The results presented at the HFSA over the weekend demonstrated multiple cardioprotective effects of SUBQ administered cannabidiol and provide additional evidence in support of the development of CRD-38, our novel SUBQ formulation of cannabidiol intended for the treatment of heart failure. Furthermore, we believe our SUBQ formulation offers the potential for sustained drug release over time, allowing for less frequent administration and improved patient compliance in a chronic disease setting."

The poster entitled "Cannabidiol As A Potential Treatment For Heart Failure With Preserved Ejection Fraction" was presented on October 7th within the "ePoster Viewing Session III" of HFSA2023. This work was performed using a model of HFpEF that is induced using a combination of high-fat diet and hypertension that leads to an increase in heart weight to tibia length ratio, and an increase in markers for inflammation and cardiac remodeling. Cannabidiol administered SUBQ was associated with significantly lower BNP (a cardiac stress marker raised in heart failure patients), IL-10 (a promotor of fibrosis in HFpEF), and visceral adipose tissue (VAT) to subcutaneous adipose tissue (SAT) ratio.

The ratio of VAT/SAT holds critical significance in the context of heart failure. Visceral adipose tissue, the fatty tissue stored around internal organs, is metabolically active and releases inflammatory factors contributing to systemic inflammation. In contrast, subcutaneous adipose tissue, found beneath the skin, has a less detrimental impact. An imbalance in this ratio with excessive visceral adipose tissue is associated with a higher risk of cardiovascular disease, including heart failure. Visceral fat accumulation increases cardiac strain, promotes hypertension, and dysregulates lipid metabolism. Additionally, it can lead to obesity-related comorbidities such as diabetes. Managing this ratio could play an important role in preventing and treating heart failure.

Together these new findings expand the understanding of the cardioprotective effects of CRD-38 and suggest new therapeutic potential in HFpEF, which remains a leading cause of death and hospital admissions in the United States and throughout the developed world, with associated healthcare costs in the US exceeding US$30 billion annually.

About Heart Failure with Preserved Ejection Fraction

According to a 2022 consensus Guidelines for the Management of Heart Failure published in collaboration between the HFSA, the American Heart Association, and the American College of Cardiology, HFpEF is defined as heart failure with a left ventricular ejection fraction ("LVEF") of ≥50%. The prevalence of HFpEF is increasing and now accounts for approximately 50% of cases of heart failure – a rise that can be attributed to increasing risk factors for heart failure such as obesity, diabetes, and hypertension. Similar to heart failure with reduced ejection fraction (i.e., a LVEF of ≤40%), the 5-year mortality rate for HFpEF is 76%. By the year 2030, the prevalence of HF (with any ejection fraction) in the United States is projected to reach approximately 8 million cases, representing about 3.0% of people 18 years and older.

About the 2023 Heart Failure Society of America Annual Scientific Meeting

The HFSA Annual Scientific Meeting 2023 brings together leading experts, researchers, and healthcare professionals in the field of cardiology to share groundbreaking discoveries, innovative treatments, and collaborative strategies in the fight against heart failure. The event offers a diverse program including basic science, translational and clinical sessions.

About Cardiol Therapeutics

Cardiol Therapeutics Inc. (**NASDAQ: CRDL**) (**TSX: CRDL**) is 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. The Company's lead small molecule drug candidate, CardiolRx™ (cannabidiol) oral solution, is pharmaceutically manufactured and in clinical development for use in the treatment of heart disease. It is recognized that cannabidiol inhibits activation of the inflammasome pathway, an intracellular process known to play an important role in the development and progression of inflammation and fibrosis associated with myocarditis, pericarditis, and heart failure.

Cardiol has received Investigational New Drug Application authorization from the United States Food and Drug Administration to conduct clinical studies to evaluate the efficacy and safety of CardiolRx™ in two diseases affecting the heart: (i) a Phase II multi-center open-label pilot study in recurrent pericarditis (the MAvERIC-Pilot study; NCT05494788), an inflammatory disease of the pericardium which is associated with symptoms including debilitating chest pain, shortness of breath, and fatigue, and results in physical limitations, reduced quality of life, emergency department visits, and hospitalizations; and (ii) a Phase II multi-national, randomized, double-blind, placebo-controlled trial (the ARCHER trial; NCT05180240) in acute myocarditis, an important cause of acute and fulminant heart failure in young adults and a leading cause of sudden cardiac death in people less than 35 years of age.

Cardiol is also developing a novel subcutaneously administered drug formulation of cannabidiol intended for use in heart failure – a leading cause of death and hospitalization in the developed world, with associated healthcare costs in the United States exceeding $30 billion annually.

For more information about Cardiol Therapeutics, please visit cardiolrx.com.

Cautionary statement regarding forward-looking information:

This news release contains "forward-looking information" within the meaning of applicable securities laws. All statements, other than statements of historical fact, that address activities, events, or developments that Cardiol believes, expects, or anticipates will, may, could, or might occur in the future are "forward-looking information". Forward looking information contained herein may include, but is not limited to, statements relating to the Company's focus on developing anti-inflammatory and anti-fibrotic therapies for the treatment of heart disease, the molecular targets and mechanism of action of the Company's product candidates, the Company's intended clinical study and trial activities and timelines associated with such activities, and the Company's plan to advance the development of a novel subcutaneous formulation of cannabidiol for use in heart failure, the results of this study providing additional evidence in support of the development of CRD-38 intended for the treatment of heart failure, the belief our subcutaneous formulation offers the potential for sustained drug release over time, allowing for less frequent administration and improved patient compliance in a chronic disease setting and managing the VAT/SAT ratio could play an important role in preventing and treating heart failure. Forward-looking information contained herein reflects the current expectations or beliefs of Cardiol based on information currently available to it and is based on certain assumptions and is also 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, and are not (and should not be considered to be) guarantees of future performance. These risks and uncertainties and other factors include the risks and uncertainties referred to in the Company's Annual Report on Form 20-F dated March 28, 2023, as well as the risks and uncertainties associated with product commercialization and clinical studies. These assumptions, risks, uncertainties, and other factors should be considered carefully, and investors should not place undue reliance on the forward-looking information, and such information may not be appropriate for other purposes. Any forward-looking information speaks only as of the date of this press release 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.

For further information, please contact:

Trevor Burns, Investor Relations +1-289-910-0855
trevor.burns@cardiolrx.com