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Cardiol Therapeutics Announces First Patient Enrolled in LANCER, a Phase II/III Outcomes Trial in High-risk Patients Hospitalized with COVID-19

Trial designed to investigate the cardioprotective properties of CardiolRx™ in patients hospitalized with COVID-19 who have a prior history of, or risk factors for, cardiovascular disease

Oakville, ON – April 28, 2021 – Cardiol Therapeutics Inc. (**TSX: CRDL**) (**OTCQX: CRTPF**) (**FSE: CT9**) (**"Cardiol"** or the **"Company"**), a clinical-stage biotechnology company focused on developing innovative anti-inflammatory therapies for the treatment of cardiovascular disease (CVD), announced today that the first patient has been randomized in LANCER, a Phase II/III trial of CardiolRx™, a pharmaceutically produced oral cannabidiol formulation being developed for the treatment of acute and chronic inflammation associated with heart disease. The LANCER trial is a randomized, double-blind, placebo-controlled study, designed to assess the efficacy and safety of CardiolRx in preventing cardiovascular complications in 422 hospitalized patients with a confirmed diagnosis of COVID-19, and who have pre-existing or significant risk factors for CVD.

"There is compelling evidence that inflammation plays a fundamental role in the development and progression of heart disease," said Dr. Andrew Hamer, Chief Medical Officer of Cardiol Therapeutics. "I am excited to see the initiation of the LANCER trial which will provide a unique opportunity to explore the anti-inflammatory and cardioprotective properties of CardiolRx in COVID-19 patients who are at high risk for major cardiovascular complications."

The LANCER trial is enrolling patients at major hospital centers in the United States under an Investigational New Drug (IND) application approved by U.S. Food and Drug Administration (FDA). As previously announced, the composite primary efficacy endpoint of the trial will be the difference between the active and placebo groups in the percentage of patients who develop, during the first twenty-eight days following randomization and first dose of study medication, one or more of several common outcomes in this patient population. These include all-cause mortality, requirement for ICU admission and/or ventilatory support, as well as cardiovascular complications, including the development of heart failure, acute myocardial infarction, myocarditis, stroke, or new sustained or symptomatic arrhythmia.

Patients with COVID-19 primarily present with respiratory symptoms which can progress to bilateral pneumonia and serious pulmonary complications. It is now recognized that the impact of COVID-19 is not limited to the pulmonary system. Individuals with pre-existing CVD or who have risk factors for CVD (such as diabetes, hypertension, obesity, abnormal serum lipids, or age greater than 64) are at significantly greater risk of developing serious disease from COVID-

19 and experience greater morbidity. Moreover, such COVID-19 patients are at significant risk of developing cardiovascular complications (such as acute myocardial infarction, cardiac arrhythmias, myocarditis, stroke, and heart failure) during the course of their illness, which are frequently fatal. A therapeutic strategy to prevent or limit the number or severity of these cardiovascular complications is likely to considerably improve outcomes from this disease.

LANCER was designed and is being overseen by an independent Steering Committee, consisting of international thought leaders in inflammatory heart disease. The trial is expected to be completed during 2021 and, subject to results, to support an emergency use authorization for the treatment of COVID-19 patients who would have qualified for enrollment in LANCER. Depending on how the pandemic evolves or to the extent that COVID-19 becomes endemic, successful trial results may also be used to support a new drug application. The trial is also expected to generate invaluable clinical data with respect to the therapeutic potential of CardiolRx™ in the treatment of other cardiac inflammatory disorders, including acute myocarditis and heart failure.

About Cardiol Therapeutics

Cardiol Therapeutics Inc. (TSX: CRDL) (OTCQX: CRTPF) (FSE: CT9) is a clinical-stage biotechnology company focused on the research and clinical development of innovative anti-inflammatory therapies for the treatment of cardiovascular disease ("CVD"). The Company's lead product, CardiolRx™, is a pharmaceutically produced oral cannabidiol formulation that is being investigated in a Phase II/III outcomes study in hospitalized patients testing positive for the COVID-19 virus. This potentially registrational trial is designed to evaluate the efficacy and safety of CardiolRx as a cardioprotective therapy to reduce mortality and major cardiovascular events in COVID-19 patients who have a prior history of, or risk factors for, CVD, and to investigate the influence CardiolRx has on key markers of inflammatory heart disease.

Cardiol is also planning to file an investigational new drug ("IND") application for a Phase II international trial that will investigate the anti-inflammatory and anti-fibrotic properties of CardiolRx in patients with acute myocarditis, which remains the most common cause of sudden cardiac death in people under 35 years of age. In addition, Cardiol is developing a subcutaneous formulation of CardiolRx and other anti-inflammatory therapies for the treatment of chronic heart failure – a leading cause of death and hospitalization in North America, with associated annual healthcare costs in the U.S. alone exceeding $30 billion.

Cardiol recently commercialized Cortalex™ (cortalex.com), a pharmaceutically produced cannabidiol formulation developed to address underserved segments of the Canadian medicinal cannabidiol market.

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 Canadian securities laws. All statements, other than statements of historical fact, that address activities, events, or developments that Cardiol Therapeutics Inc. ("Cardiol" or the "Company") believes, expects, or anticipates will, may, could or might occur in the future are "forward-looking information." Forward-looking information contained herein may include, statements relating to the Company's plans for clinical trials and its development of innovative anti-inflammatory therapies for the treatment of cardiovascular disease. 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, 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 Information Form dated March 31, 2021, including the risks and uncertainties associated with product commercialization and clinical studies. 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.

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