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## **Cardiol Therapeutics Announces Study Demonstrating its Proprietary Nanotechnology Targets Fibrous Tissue in the Heart**

**Results showed a greater than 100-fold increase in uptake of Cardiol's nanoparticles in heart failure hearts compared with control hearts**

**Oakville, ON – April 14, 2020 – Cardiol Therapeutics Inc. (TSX: CRDL; OTCQX: CRTPF)** (“Cardiol” or the “Company”), a leader in the production of pharmaceutical cannabidiol (CBD) and the development of innovative cannabidiol products for heart diseases, is pleased to announce that data describing Cardiol’s nanotechnology approach to drug delivery were submitted by the Company’s international research collaborators and accepted for presentation at the American College of Cardiology’s (ACC) 69th Annual Scientific Session & Expo together with the World Congress of Cardiology, held virtually from March 28-30.

Results from this study, conducted at the Houston Methodist DeBakey Heart & Vascular Center, showed that there was a greater than 100-fold increase in uptake of Cardiol’s nanoparticles in heart failure hearts compared with control hearts in a pre-clinical model of non-ischemic heart failure. The nanoparticles localized within the diseased hearts, predominantly in areas of fibrosis. Fibrosis is an important component of the pathology of heart failure and is primarily responsible for the stiffening and reduced function of the heart muscle. Moreover, the nanoparticles accumulated within the cytoplasm of the cultured fibroblasts. This evidence of Cardiol’s nanoparticles preferentially accumulating intracellularly in fibroblasts shows potential for the successful delivery of anti-fibrotic drugs, such as cannabidiol, to the diseased region of the heart.

“These results are exciting and provide new insights into how nanotherapeutics may be utilized to target the anti-fibrotic properties of cannabidiol to fibrous tissue in the failing heart,” said Dr. Arvind Bhimaraj, MD, MPH, Interim Division Chief of the Division of Heart Failure and Co-director of the Heart Failure Translational Research Laboratory at Houston Methodist DeBakey Heart & Vascular Center and a member of the Clinical Steering Committee for Cardiol’s planned international clinical trial in acute myocarditis. “The specific targeting of the fibrotic tissue in the heart offers the potential to utilize drugs more effectively to prevent the progression of heart failure.”

Cardiol’s proprietary nanotechnology is designed to enable the distribution of water insoluble drugs within the blood (aqueous) circulation, improve pharmacokinetics, and facilitate drug accumulation in the failing heart. Cardiol’s nanoparticles are based on a patented family of biocompatible and biodegradable amphiphilic block co-polymers made from polyethylene

glycol (PEG) and polycaprolactone (PCL). Both PEG and PCL have a long history of safe use in humans.

### **About Cardiol Therapeutics**

Cardiol Therapeutics Inc. (TSX: CRDL; OTCQX: CRTPF) is focused on producing pharmaceutical cannabidiol (CBD) products and developing innovative therapies for heart diseases, including acute myocarditis and other causes of heart failure. The Company's lead product, CardiolRx™, is formulated to be the most consistent cannabidiol formulation on the market. CardiolRx is pharmaceutically produced, manufactured under cGMP, and is THC free (<5 ppm). The Company also plans to commercialize CardiolRx in the billion-dollar market for medicinal cannabinoids in Canada and is pursuing distribution opportunities in Europe and Latin America.

In heart failure, Cardiol is planning an international clinical study of CardiolRx in acute myocarditis, a condition caused by inflammation in heart tissue, which remains the most common cause of sudden cardiac death in people less than 35 years of age. The Company is also developing proprietary nanotechnology to uniquely deliver pharmaceutical cannabidiol and other anti-inflammatory drugs directly to sites of inflammation in the heart associated with heart failure. Heart failure is the leading cause of death and hospitalization in North America with associated annual healthcare costs in the U.S. alone exceeding \$30 billion. For further information about Cardiol Therapeutics, please visit [cardiolrx.com](http://cardiolrx.com).

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### **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") believes, expects or anticipates will, may, could or might occur in the future are "forward-looking information". Forward-looking information is frequently identified by the use of words such as "plans", "expects", "projects", "intends", "believes", "anticipates", "forecasts", and other similar words and phrases, including variations (and negative variations) of such words and phrases, or may be identified by statements to the effect that certain actions, events or conditions "may", "could", "should", "would", or "will" be taken, occur or be achieved. Forward-looking information contained herein may include, but is not limited to, statements with respect to: future events; the future performance or the intended business strategy of Cardiol, including, but not limited to, the plan to commercialize CardiolRx and the planning of an international clinical study of CardiolRx in acute myocarditis; the potential for Cardiol's licensed drug encapsulation and delivery technologies to enhance the bioavailability of pharmaceuticals; management's expectations regarding estimated future pharmaceutical research and development opportunities, collaborations and prospects; the success and proposed timing of Cardiol's product*

*development activities; the ability of Cardiol to develop its product candidates; Cardiol's plans to research, discover, evaluate and develop additional products; Cardiol's proposed future collaborations to advance Cardiol's lead nanoformulations into clinical development; and the potential for Cardiol's cannabinoid-based products to provide sources of future revenue. 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 that the success of Cardiol's product candidates will require significant capital resources and years of clinical development efforts; the results of clinical testing and trial activities of Cardiol's products; Cardiol's ability to obtain regulatory approval and market acceptance of its products; Cardiol's ability to raise capital and the availability of future financing; Cardiol's lack of operating history; unforeseeable deficiencies in the development of Cardiol's product candidates; uncertainties relating to the availability and costs of financing needed in the future for Cardiol's research and development initiatives; Cardiol's ability to manage its research, development, growth and operating expenses; the potential failure of clinical trials to demonstrate acceptable levels of safety and efficacy of Cardiol's product candidates; Cardiol's ability to retain key management and other personnel; risks related to fluctuations in medicinal cannabinoid markets in Canada and worldwide; uncertainties regarding Cardiol's ongoing collaborative and manufacturing partnerships; uncertainties regarding results of researching and developing products for human use; Cardiol competes in a highly competitive and evolving industry; Cardiol's ability to obtain and maintain current and future intellectual property protection; and other risks and uncertainties and factors. 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 news release understands the significant risks attendant to the operations of Cardiol.*