

# CARDIOL THERAPEUTICS INC. MANAGEMENT'S DISCUSSION AND ANALYSIS YEAR ENDED DECEMBER 31, 2018

### MANAGEMENT'S DISCUSSION AND ANALYSIS

#### Introduction

The following management's discussion and analysis ("MD&A") of the financial condition and results of the operations of Cardiol Therapeutics Inc. (the "Corporation" or "Cardiol") constitutes Management's review of the factors that affected the Corporation's financial and operating performance for the year ended December 31, 2018 (the "2018 Fiscal Period"). This MD&A was written to comply with the requirements of National Instrument 51-102 — Continuous Disclosure Obligations. This discussion should be read in conjunction with the financial statements for the year ended December 31, 2018 and the period from January 19, 2017 (incorporation) to December 31, 2017 ("Financial Statements"), together with the respective notes thereto. Results are reported in Canadian dollars, unless otherwise noted. The Financial Statements and the financial information contained in this MD&A are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board and interpretations of the IFRS Interpretations Committee. In the opinion of Management, all adjustments (which consist only of normal recurring adjustments) considered necessary for a fair presentation have been included.

This MD&A is dated March 27, 2019. All dollar amounts in this MD&A are reported in Canadian dollars, unless otherwise stated. Unless otherwise noted or the context indicates otherwise the terms "we", "us", "our", "Cardiol" or the "Corporation" refer to Cardiol Therapeutics Inc.

This MD&A is presented current to the date above unless otherwise stated. The financial information presented in this MD&A is derived from the Financial Statements. This MD&A contains forward-looking statements that involve risks, uncertainties, and assumptions, including statements regarding anticipated developments in future financial periods and our plans and objectives. There can be no assurance that such information will prove to be accurate, and readers are cautioned not to place undue reliance on such forward-looking statements. See "Forward-Looking Statements" and "Risk Factors".

### **Forward-Looking Information**

This MD&A contains forward-looking information that relate to the Corporation's current expectations and views of future events. In some cases, this forward-looking information can be identified by words or phrases such as "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. The Corporation has based this forward-looking information 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. The forward-looking information includes, among other things, statements relating to:

- our launch, marketing, and sale of a pharmaceutically-manufactured pure cannabidiol oil as a Cannabis Act product line;
- the ability for our nanotherapeutics to deliver cannabinoids and other anti-inflammatory drugs to inflamed tissue in the heart;
- our development of proprietary cannabidiol formulations for near-term commercialization;
- our expectation that we will be in a position to offer an advanced precise dosing sublingual spray form of cannabidiol upon the addition of concentrates to the Cannabis Act by October 17, 2019;
- the successful development and commercialization of our current product candidates and the addition of future products;
- our expectation of a significant increase in the market and interest for pure pharmaceutical cannabinoid products following de-scheduling of cannabinoids from the Canada's Controlled Drugs and Substances Act, SC 1996, c. 19 (the "CDSA");
- the expected growth in the size of the market for cannabidiol in Canada, the United States, and internationally;
- our intention to build a pharmaceutical brand and cannabidiol products focused on addressing heart

failure;

- the expected medical benefits, viability, safety, efficacy, and dosing of cannabidiol;
- patents, including, but not limited to, our ability to have patents issued covering our drugs, drug candidates and processes, as well as oppositions and legal challenges;
- our expectation of a near-term revenue opportunity from the sale of pure cannabidiol products;
- our competitive position and the regulatory environment in which we operate;
- our financial position; our business strategy; our growth strategies; our operations; our financial results; our dividends policy; our plans and objectives; and
- expectations of future results, performance, achievements, prospects, opportunities or the market in which we operate.

In addition, any statements that refer to expectations, intentions, projections or other characterizations of future events or circumstances contain forward-looking information. Forward-looking information is based on certain assumptions and analyses made by the Corporation in light of the experience and perception of historical trends, current conditions, and expected future developments and other factors it believes are appropriate, and are subject to risks and uncertainties. Although we believe that the assumptions underlying these statements are reasonable, they may prove to be incorrect, and we cannot assure that actual results will be consistent with this forward-looking information. Given these risks, uncertainties, and assumptions, prospective investors should not place undue reliance on this forward-looking information. Whether actual results, performance, or achievements will conform to the Corporation's expectations and predictions is subject to a number of known and unknown risks, uncertainties, assumptions, and other factors, including those listed under "Risk Factors", which include:

- · the inherent uncertainty of product development;
- our requirement for additional financing;
- our negative cash flow from operations;
- our history of losses;
- dependence on success of the sale of our pharmaceutically-manufactured pure cannabidiol oil as a Cannabis Act product line and our early-stage product candidates which may not generate revenue:
- reliance on Management, loss of members of Management or other key personnel, or an inability to attract new Management team members;
- our ability to develop a sublingual cannabidiol spray form;
- a delay in the Government of Canada's authorization of cannabis concentrates by October 17, 2019:
- our ability to successfully design, commence, and complete clinical trials, including the high cost, uncertainty, and delay of clinical trials and additional costs associated with any failed clinical trials;
- potential negative results from clinical trials and their adverse impacts on our future commercialization efforts:
- our ability to establish and maintain commercialization organizations in the United States ("U.S."), Mexico, and elsewhere;
- our ability to receive and maintain regulatory exclusivities, including Orphan Drug Designations, for our drugs and drug candidates;
- delays in achievement of projected development goals;
- unpredictable and volatile market price for our Class A common shares and the common share purchase warrants of the Corporation (the "Warrants");
- failure to protect and maintain and the consequential loss of intellectual property rights;
- third-party claims relating to misappropriation by our employees of their intellectual property;
- reliance on third parties to conduct and monitor our pre-clinical studies and clinical trials;
- our product candidates being subject to controlled substance laws which may vary from jurisdiction to jurisdiction;
- changes in laws, regulations, and guidelines relating to our business, including tax and accounting requirements;
- lack of successful implementation of adequate internal controls over financial reporting;

- our reliance on current early-stage research regarding the medical benefits, viability, safety, efficacy, and dosing of cannabinoids;
- uncertainty relating to market acceptance of our product candidates;
- U.S. border officials denying entry into the U.S. to employees of, or investors in, companies with cannabis operations in the United States and Canada;
- our lack of experience in commercializing any products;
- the level of pricing and reimbursement for our products and product candidates, if approved;
- our dependence on Dalton Chemical Laboratories, Inc. operating as Dalton Pharma Services ("Dalton") and other contract manufacturers;
- unsuccessful collaborations with third parties;
- business disruptions affecting third-party suppliers and manufacturers;
- lack of control in future prices of our product candidates;
- our lack of experience in selling, marketing, or distributing our products;
- competition in our industry;
- unfavorable publicity or consumer perception towards cannabidiol;
- product liability claims and product recalls;
- expansion of our business to other jurisdictions;
- fraudulent activities of employees, contractors, and consultants;
- our reliance on key inputs and their related costs;
- operating risk and insurance coverage;
- · our inability to manage growth;
- conflicts of interest among our officers and Directors;
- managing damage to our reputation and third-party reputational risks;
- relationships with customers and third-party payors and consequential exposure to applicable anti-kickback, fraud, and abuse and other healthcare laws;
- exposure to information systems security threats;
- no dividends for the foreseeable future:
- future sales of common shares by existing shareholders causing the market price for the common shares to fall; and
- the issuance of common shares in the future causing dilution.

If any of these risks or uncertainties materialize, or if assumptions underlying the forward-looking information prove incorrect, actual results might vary materially from those anticipated in the forward-looking information.

Information contained in forward-looking information in this MD&A is provided as of the date of this MD&A, and we disclaim any obligation to update any forward-looking information, whether as a result of new information or future events or results, except to the extent required by applicable securities laws. Accordingly, potential investors should not place undue reliance on forward-looking information.

### Overview

On December 20, 2018, the Corporation completed its initial public offering (the "IPO") on the Toronto Stock Exchange (the "TSX"). As a result, the common shares commenced trading on the TSX under the symbol "CRDL" and the Warrants commenced trading under the symbol "CRDL.WT".

The Corporation is a biotechnology company specializing in the research and commercial development of novel drug therapies utilizing proprietary drug-delivery systems. The Corporation is leveraging its expertise in pharmaceutical cannabinoids to develop proprietary formulations for commercial development in three important medical markets; namely, (1) commercializing a line of pharmaceutically-manufactured pure cannabidiol products in 2019 in the growing market for medicinal cannabinoids; (2) developing nanotherapeutics designed to deliver cannabinoids and other anti-inflammatory drugs for the treatment of heart failure; and (3) developing a combination therapy utilizing cannabinoids for the Glioblastoma Multiforme ("GBM"), a Fast Track eligible Orphan Indication.

The Corporation has research programs focused on developing nanotherapeutics to treat heart failure underway at international centers of excellence, including the University of Alberta, Houston Methodist DeBakey Heart & Vascular Center, and TecSalud del Tecnológico de Monterrey ("TecSalud"). Cardiol has also established an exclusive manufacturing arrangement with Dalton Pharma Services, a Health Canada-approved, U.S. Food and Drug Administration ("FDA") registered, Continuing Good Manufacturing Practice ("cGMP") manufacturer of pharmaceuticals, including cannabinoids, for supplying finished pharmaceutically-manufactured cannabidiol products to support the Corporation's research and commercial development programs. Cardiol recently entered into an exclusive supply agreement with Noramco, Inc. ("Noramco") to support Dalton's manufacturing program with large scale supply of pure pharmaceutical cannabidiol.

Cardiol brings together a wealth of research and development experience, advance manufacturing capabilities, and a Management team, Board of Directors, and Scientific Advisory Board comprising business and thought leaders with extensive industry experience and expertise in commercializing proprietary drugs.

### **Operations Highlights**

### **During the 2018 Fiscal Period**

- (i) In January 2018, Cardiol announced that experimental research performed at the Houston Methodist DeBakey Heart & Vascular Center, Texas, showed new functionality of the Corporation's in-licensed patented nanotherapeutics. Designed to act as a vehicle to target anti-inflammatory drugs to inflamed heart tissue. These new data demonstrated the accumulation of nanoparticles at regions of inflammation and fibrosis in diseased hearts, showing potential for Cardiol's proprietary nanotechnology to be used to target drugs directly to areas of inflammation and fibrosis to treat heart failure.
- (ii) In May 2018, Cardiol closed a brokered private placement of approximately \$10.5 million principal amount of unsecured convertible debentures of the Corporation. AltaCorp Capital Inc. acted as exclusive financial advisor to the Corporation and sole agent for the private placement. The convertible debentures bore interest at a rate of 8.00% per annum (on a compounded basis), payable semi annually in arrears and were to mature on May 31, 2019. The debentures were convertible, plus accrued and unpaid interest, on the earlier of the maturity date or Triggering Event (as defined below) at the lesser of 90% of the price of the Common Shares in a Triggering Event or \$2.875 per share. These debentures were automatically converted upon the IPO.

The Triggering Event means a transaction or series of transactions that result in an initial public offering of the Corporation's securities resulting in the Corporation's securities being listed for trading on a stock exchange; an amalgamation, arrangement, merger, reverse takeover, reorganization or other similar transaction of the Corporation; a sale or conveyance of all or substantially all of the property and assets or shares of the Corporation to any other person for securities of an issuer other than the Corporation.

- (iii) In August 2018, Cardiol closed a second tranche brokered private placement of \$2.4 million principal amount of unsecured convertible debentures of the Corporation. These debentures were automatically converted upon the IPO.
- (iv) In August 2018, the Corporation adopted an incentive stock option plan in accordance with the policies of the TSX, under which the Board of Directors of the Corporation may grant to directors, officers, employees and consultants of the Corporation, non-transferable options to purchase common shares provided the number of shares reserved for issuance under the stock option plan shall not exceed 10% of the issued and outstanding common shares, exercisable for a period of up to ten years from the date of grant. The Board of Directors determines the price per common share and the number of common shares,

which may be allotted to directors, officers, employees and consultants, and all other terms and conditions of the option, subject to the rules of the TSX.

(v) In August 2018, Cardiol entered into a research contract with the Houston Methodist DeBakey Heart & Vascular Center to build upon the initial research in an experimental model of heart failure.

(vi) In August 2018, Cardiol entered into a development agreement (the "CARO Development Agreement") with TecSalud and Nano4Heart through the Instituto Tecnológico y de Estudios Superiores de Monterrey's Clinical Academic Research Organization, S.A. de C.V. ("CARO"), Mexico, for research and development of proprietary drug formulations for the treatment of heart failure. CARO is a Mexican corporation dedicated to providing clinical and scientific experimentation and consulting, as well as performing its own development activities or through third party providers. TecSalud and Nano4Heart are third parties through which CARO will provide its consulting and development activities for Cardiol.

Pursuant to the terms of the CARO Development Agreement, CARO will provide scientific experimentation, research activities, drug development activities, access to intellectual property, and drug formulation and discovery activities to Cardiol (the "CARO Development Activities"), as set out in a development plan (the "CARO Development Plan") through TecSalud and Nano4Heart. CARO and Cardiol value the CARO Development Activities, provided through research, at USD\$3,000,000. Under the CARO Development Agreement, CARO may also engage third party providers for development activities in support of the CARO Development Plan, which is anticipated to be limited to third party vendors of materials.

As consideration under the CARO Development Agreement, Cardiol issued 824,000 Common Share purchase warrants (the "CARO Compensation Warrants") to CARO, with each CARO Compensation Warrant entitling CARO to purchase one Common Share (a "CARO Compensation Warrant Share") at an exercise price of \$4.00 per CARO Compensation Warrant Share until August 31, 2022. Cardiol also agreed to pay CARO USD\$400,000 in cash (paid subsequent to December 31, 2018).

The CARO Compensation Warrants and the issuance of the CARO Compensation Warrant Shares on the exercise thereof are to constitute full payment for the CARO Development Activities, both past and future, under the CARO Development Plan. CARO is not to issue invoices for any of the CARO Development Activities under the CARO Development Plan until such time as CARO, in its discretion, wishes to exercise any of its CARO Compensation Warrants. If CARO wishes to exercise any of the CARO Compensation Warrants, CARO is to provide Cardiol with one or more invoices, tied to milestones in the CARO Development Plan, and the aggregate amount of the invoices shall constitute payment in full of the aggregate exercise prices of the CARO Compensation Warrants being exercised.

Both Cardiol and CARO may terminate the CARO Development Agreement if the other party commits a material breach of the CARO Development Agreement and the breaching party fails to remedy the material breach within 60 days following receipt of written notice of the breach. In addition, either party may terminate the CARO Development Agreement by giving 30 days written notice to the other party if, acting reasonably and in good faith, it determines that the continued performance of the CARO Development Activities would (i) constitute a potential or actual violation of applicable law or any policy of the terminating party adopted to ensure compliance with applicable law; (ii) constitute a potential or actual violation of any regulatory, medical or scientific standard of integrity or ethics; or (iii) potentially jeopardize patient safety, provided that during such 30 day period, the parties discuss in good faith possible changes to the CARO Development Activities.

However, if CARO terminates the CARO Development Agreement for any reason except breach of contract by Cardiol, or terminates the CARO Development Activities prior to achievement of all milestones in the CARO Development Plan, then any unexercised CARO Compensation Warrants that are not related to CARO Development Activities and milestones in the CARO Development Plan that have been attained up

to the time of termination of the CARO Development Agreement shall be deemed terminated as of the time of termination of the CARO Development Agreement.

If Cardiol terminates the CARO Development Agreement for any reason (including breach of contract by CARO), or requires CARO to terminate the CARO Development Activities prior to achievement of all milestones in the CARO Development Plan, then the CARO Compensation Warrants issued to CARO that can be invoiced for the CARO Development Activities completed up to the time of termination shall be considered to have been earned notwithstanding such termination. The CARO Compensation Warrants that cannot be exercised (because invoices for CARO Development Activities not completed cannot be issued) will be deemed terminated, null and void as of termination.

In September 2018, Cardiol filed a U.S. provisional patent application for, amongst other things, a combination therapy using cannabinoids and immunotherapy to treat cancers, such as GBM. Cardiol's patent pending technology involves combining proprietary cannabinoid formulations intended to slow the invasiveness of tumors with immunotherapies designed to target and kill tumor cells.

(vii) In September 2018 and as amended in December 2018, Cardiol entered into an exclusive supply agreement (the "Noramco Exclusive Supply Agreement") with Noramco, a global leader in the manufacture and supply of controlled drug substance active pharmaceutical ingredients ("APIs"), for the exclusive rights to use Noramco's pharmaceutical cannabidiol in Canada and Mexico with the sole exception being that Noramco shall have the right to sell the pharmaceutical cannabidiol to third parties outside Canada for use in products that are approved as prescription medicines by the Therapeutic Products Directorate of Health Canada. The Noramco Exclusive Supply Agreement provides Cardiol with the necessary capacity to scale its commercial product business to metric tonnes per year of cannabidiol at >99.5% purity and less than 10 ppm THC.

The initial term of the Noramco Exclusive Supply Agreement expires on December 31, 2038, and thereafter automatically renews for successive periods of 2 calendar years each, unless written notice of termination is given by either party at least 18 months before the expiration of the initial term or completion of the then current renewal term.

Noramco must meet certain specifications and volume requirements as set out in the Noramco Exclusive Supply Agreement. On or before December 31 of each year, Cardiol must order from Noramco a specified minimum quantity of pharmaceutical cannabidiol for delivery during the following year (the "Noramco Minimum Yearly Purchase") at prices specified in the Noramco Exclusive Supply Agreement.

As consideration for the exclusive right to purchase pharmaceutical cannabidiol from Noramco, Cardiol paid Noramco a non-recoupable sum of USD\$3,000,000, which payment will be credited towards payments for Cardiol's purchases of pharmaceutical cannabidiol during 2019. On the condition that Cardiol complies with the Noramco Minimum Yearly Purchase, Noramco has agreed to not sell pharmaceutical cannabidiol to any other party for use in the production of products of any kind in Canada or Mexico, or to any third party for delivery of products of any kind into Canada or Mexico. Notwithstanding this restriction, Noramco shall have the right to sell pharmaceutical cannabidiol to third parties outside Canada for use in products that are approved as prescription medicines by the Therapeutic Products Directorate of Health Canada for delivery into Canada.

(viii) In October 2018, the Corporation and Meros Polymers Inc. ("Meros") cancelled and returned to treasury 1,020,000 common shares of Meros that were held in escrow which were held in escrow pursuant to the a license agreement between the Corporation and Meros dated January 20, 2017 (the "Meros License Agreement"). In exchange, the Corporation issued 1,020,000 special warrants (the "Meros Special Warrants") convertible automatically into common shares for no additional consideration upon the Corporation achieving the milestone (the "Meros Milestone") set out in the Meros License Agreement.

(ix) In December 2018, the Corporation completed its IPO by issuing 3,000,000 common share units at \$5.00 per unit for gross proceeds of \$15,000,000. Each unit consisted of one common share and one Warrant. Each Warrant is exercisable into one common share at the price of \$6.50 per share for a period

of two years, subject to accelerated expiry if, at any time, the volume weighted average trading price of the common shares is equal to or greater than \$10.00 for any 10 consecutive trading day period.

The IPO was conducted through a syndicate of underwriters led by AltaCorp Capital Inc. and including Mackie Research Capital Corporation, Raymond James Ltd., Echelon Wealth Partners Inc., and Paradigm Capital Inc. (the "Underwriters"). The Corporation granted the Underwriters an over-allotment option (the "Over-Allotment Option"), which could be exercised in whole or in part, for a period of 30 days from closing of the IPO, to purchase additional: (a) units at a price of \$5.00 per unit; (b) common shares at a price of \$4.62 per share; (c) Warrants at a price of \$0.38 per Warrant; or (d) any combination of common shares and Warrants, so long as the aggregate number of common shares that were issued under the Over-Allotment Option did not exceed 450,000 common shares and 450,000 Warrants.

An additional 374,544 Warrants were purchased at a price of \$0.38 per Warrant pursuant to the partial exercise by the underwriters of the Over-Allotment Option, as defined below.

The Underwriters were paid cash fees of \$900,000 and 180,000 compensation warrants. Each compensation warrant entitles the holder to acquire one common share of the Corporation at \$5.00 for a period of 12 months from closing of the IPO.

- (x) In December 2018, the Corporation issued 4,513,612 common shares at \$2.875 per share on conversion of convertible debentures, plus accrued and unpaid interest, totalling \$12,976,635
- (xi) Effective December 31, 2018, Dalton received the following Cannabis Act licenses as a result of its application to transfer its Dealer License under the Narcotic Control Regulations:
- Standard Processing License
- Cannabis Drug License
- Research License

Dalton's Standard Processing License allows for the manufacture of Cannabis Act Products. Dalton is currently in the process of further upgrading its Standard Processing License to also allow for the sale of Cannabis Act Products; a process that is expected to be completed during the Q3, 2019.

### Subsequent to December 31, 2018

- (i) Subsequent to December 31, 2018, the remaining outstanding convertible debenture, with a face value of \$400,000, was converted into 2,700,000 common shares.
- (ii) Subsequent to December 31, 2018, the Corporation granted 150,000 stock options to a certain officer of the Corporation. Each stock option allows the holder to acquire one common share of the Corporation at an exercise price of \$4.30 and expires on January 2, 2026. The options vested on grant.
- (iii) Subsequent to December 31, 2018, the Corporation granted 285,000 stock options to certain employees and consultants of the Corporation. Each stock option allows the holder to acquire one common share of the Corporation at an exercise price of \$5.34. 125,000 stock options expire July 24, 2020 and vest 25% every three months from the grant date. 100,000 stock options expire January 24, 2024 and vest 25% every three months from the grant date. 60,000 stock options expire January 24, 2026 and vest 1/3 each on the first, second and third anniversaries of the grant date.
- (iv) Subsequent to December 31, 2018, as additional 374,544 common shares at \$4.62 per share for gross proceeds of \$1,730,393 were granted under the Over-Allotment Option. As a result, an additional 22,472 compensation warrants were issued.
- (v) Subsequent to December 31, 2018, the Corporation announced the appointment of Thomas (Tom) Moffatt, BBA, as Chief Commercial Officer.

Mr. Moffatt was most recently the Chief Operating Officer and Vice-President, Operations at Rx Drug Mart Inc., where he was responsible for the growth, marketing, and development of all operations for more than 45 stores, including marketing, personnel, and strategic activities. Established in 2015, Rx Drug Mart is a pharmacy retail organization that brings the priority back to the pharmacy, the patient, and the community.

Tom gained extensive experience during a tenure of more than 20 years at Shoppers Drug Mart, where he honed his analytical skills, specifically in the areas of finance, marketing, communications and development, P&L, merchandising, and corporate strategy. He rose through the ranks from Director Operations Ontario West, to National Vice-President Operations and Strategy. Shoppers Drug Mart is Canada's leading drug store retailer, with more than 1,300 pharmacist-owned locations across Canada.

Following his wide-ranging career at Shoppers Drug Mart, Mr. Moffatt joined World Vintners Inc. where he was Senior Vice-President Retail and Corporate Development, Corporate Secretary, and President Retail. Tom oversaw the company's purchase and merger of two wine-producing and retail entities prior to their sale in 2008. He also developed and launched new wine brands specifically for big-box retailers and Independent Wine Dealers.

From 2010 to 2015, Mr. Moffatt was Senior Director of Mergers and Acquisitions/Pharmacy Operations at Loblaw Companies Ltd. and participated in the successful acquisition of Shoppers Drug Mart. Tom also established the current set of operational standards for the 503-store pharmacy group.

(vi) Subsequent to December 31, 2018, the Corporation cancelled 40,000 stock options exercisable at \$5.00 and originally to expire August 30, 2025.

#### Outlook

The Corporation received approximately \$12,816,000 in net proceeds from the IPO (\$14,443,000 including over-allotment exercised subsequent to December 31, 2018), after deducting fees paid to the Underwriters in connection with the IPO and all expenses of the IPO. The Corporation intends to use the net proceeds from the IPO for the following purposes:

- Approximately \$4.2 million in the aggregate to fund the development of Cardiol's CTX product series. Cardiol intends to select the most promising of the CTX series nanotherapeutics to advance into clinical development, of which we expect:
  - Approximately \$1.7 million will be used to fund basic science, preclinical studies, and a Phase 1 clinical program. This amount is expected to be divided equally between CTX01, CTX02 and CTX03; and
  - Approximately \$2.5 million in the aggregate will be used to initiate a Phase 2 clinical trial program designed to investigate the safety and initial efficacy of one or more of the CTX series nanotherapeutics;
- Approximately \$1.1 million in the aggregate will be used to fund the development efforts of Cardiol's immunotherapy in combination with cannabinoids for its target indication of GBM
- Approximately \$3.5 million to fund the market introduction, distribution, and marketing of a pharmaceutically manufactured commercial cannabidiol oil product, of which we expect:
  - Direct-to-consumer sales expenditure, including website development and marketing to third-party partners and logistics - \$1.5 million; and
  - Prescription sales expenditure, including physician advocacy, creative developments and producing material samples - \$2.0 million; and
- USD\$3.0 million (approximately \$3.9 million) paid to make an exclusivity payment to Noramco which will be credited towards the Corporation's purchases of pharmaceutical cannabidiol from Noramco.

The Corporation's Use of Proceeds includes the payment of \$100,000 expected to be made on the initiation of a Phase II program to Meros. No other Meros milestone payments are expected to occur within the time period covered by the Use of Proceeds.

The Corporation expects to use the remaining net proceeds, along with cash currently available to the Corporation, to support manufacturing scale up and optimization of the CTX product series and the Corporation's pharmaceutically manufactured cannabidiol and to fund clinical trials for its pharmaceutically manufactured cannabidiol and to fund working capital and for general corporate purposes, including the recruitment of key executive personnel and to increase the Corporation's staff complement.

The Corporation expects that the net proceeds from the IPO and existing cash and cash equivalents will be sufficient to fund operations and capital requirements 24 months from December 31, 2018. We believe that these available funds will be sufficient to complete the following:

- (i) A Phase 1 program designed to investigate the safety and pharmacokinetic of one or more of the CTX series products selected from the Corporation's pre-clinical research program.
- (ii) The initiation of a Phase 2 clinical program designed to investigate the safety and efficacy of one or more of the CTX series products in heart failure patients.
- (iii) Advance the development of the Corporation's CRxIMT combination therapy for the potential treatment GBM patients.
- (iv) In collaboration with its exclusive partner, Dalton, a Health Canada-approved, FDA registered, cGMP manufacturer of pharmaceuticals, including cannabinoids, Cardiol plans to introduce a pharmaceutical cannabidiol product developed and manufactured to pharmaceutical standards that meet or exceed the standards mandated under the Cannabis Act. Cardiol anticipates commercializing its first pharmaceutical cannabidiol product, CardiolRX cannabidiol, during Q4 2019.

The progress of the CTX product series and immunotherapy in combination with cannabinoids is uncertain due to numerous factors, including, without limitations, the progress and results of pre-clinical studies and the rate of progress and results of clinical trials for such indications, the cost and timing of seeking and obtaining FDA, United States Drug Enforcement Agency ("DEA") and other regulatory approvals for clinical trials and FDA guidance regarding clinical trials for such indications.

While we currently anticipate that we will use the net proceeds of the IPO as set forth above, we may reallocate the net proceeds from time to time depending upon our growth strategy relative to market and other conditions in effect at the time. Until we use the net proceeds, we will hold them in cash and/or invest them in short-term, interest-bearing, investment-grade securities.

### **Selected Annual Financial Information**

	Year ended December 31, 2017	January 19, 2017 to December 31, 2017
Net loss	\$15,893,735	\$(1,660,926)
Net loss per share (basic and fully diluted)	\$(1.03)	\$(0.13)
	As at December 31, 2018	As at December 31, 2017
Total assets	\$24,684,773	\$3,220,683
Total long-term financial liabilities	\$269,216	\$190,043

### **Summary of Quarterly Results**

The Corporation's quarterly information in the table below is prepared in accordance with IFRS.

	Total _	Profit or (Loss)		Total
	Revenue		Per Share <sup>(9)</sup>	Assets
Three Months Ended	(\$)	Total (\$)	(\$)	(\$)
December 31, 2018 <sup>(1)</sup>	nil	(9,073,590)	(0.58)	24,684,773
September 30, 2018 <sup>(2)</sup>	nil	(4,910,232)	(0.32)	13,094,086
June 30, 2018 <sup>(3)</sup>	nil	(1,358,280)	(0.09)	12,143,959
March 31, 2018 <sup>(4)</sup>	nil	(551,633)	(0.04)	2,854,705
December 31, 2017 <sup>(5)</sup>	nil	(588,260)	(0.04)	3,220,683
September 30, 2017 <sup>(6)</sup>	nil	(535,734)	(0.04)	3,282,843
June 30, 2017 <sup>(7)</sup>	nil	(442,556)	(0.03)	2,070,943
Period from January 19, 2017 to				
March 31, 2017 <sup>(8)</sup>	nil	(94,376)	(0.01)	2,248,856

#### Note:

- (1) Net loss of \$9,073,590 included change in derivative liability of \$5,635,573, share-based compensation of \$895,960, administration of \$731,852, salaries and benefits of \$577,675, listing expense of \$397,528, investor relations and promotions of \$355,291, research and development of \$281,098 and accretion and interest on convertible debentures of \$268,900.
- (2) Net loss of \$4,910,232 included change in derivative liability of \$2,246,688, share-based compensation of \$757,285, administration of \$716,192, research and development of \$447,023, salaries and benefits of \$410,912, accretion and interest on convertible debentures of \$267,727, and investor relations and promotions of \$81,187.
- (3) Net loss of \$1,358,280 included research and development of \$548,262, administration of \$322,502, salaries and benefits of \$315,342, accretion and interest on convertible debentures of \$108,041 and investor relations and promotions of \$41,038.
- (4) Net loss of \$551,633 included research and development of \$256,223, administration of \$164,957, salaries and benefits of \$60,778, investor relations and promotions of \$30,326 and accretion and interest on convertible debentures of \$18,705.
- (5) Net loss of \$588,260 included administration of \$219,923, salaries and benefits of \$138,514, research and development of \$117,093, investor relations and promotions of \$74,076 and accretion and interest on convertible debentures of \$18,443.
- (6) Net loss of \$535,734 included administration of \$294,361, research and development of \$110,315, investor relations and promotions of \$55,032, salaries and benefits of \$31,696 and accretion and interest on convertible debentures of \$22,021.
- (7) Net loss of \$442,556 included research and development of \$213,849, administration of \$110,738, salaries and benefits of \$61,301, investor relations and promotions of \$29,045 and accretion and interest on convertible debentures of \$12.505.
- (8) Net loss of \$94,376 included administration of \$55,477, salaries and benefits of \$25,000, accretion and interest on convertible debentures of \$7,593 and investor relations and promotions of \$5,670.
- (9) Basic and fully diluted.

### **Discussion of Operations**

### Year ended December 31, 2018, compared to the period from January 19, 2017 to December 31, 2017

For the year ended December 31, 2018, the Corporation's net loss totalled \$15,893,735 compared to a net loss of \$1,660,926 for the period from January 19, 2017 to December 31, 2017. The increase in net loss of \$14,232,809 is a result of the following:

- Change in derivative liability was a loss of \$7,882,261 for the year ended December 31, 2018. The
  derivative liability related to the conversion feature of the debentures issued in 2018, as the result
  of the conversion price not being fixed. The loss is a result of the change in the fair value of the
  derivative liability at December 31, 2018. This item is a non-cash accounting expense which will
  not occur in 2019 due to the conversion of the debentures.
- Administration expense increased to \$1,935,503 for the year ended December 31, 2018 compared
  to \$680,498 for the period from January 19, 2017 to December 31, 2017. During the year ended
  December 31, 2018, the Corporation incurred higher professional fees due to the costs associated
  with completing the IPO, the increased operating activity of the Corporation and higher travel
  expenses as the Corporation's consultants were based outside of Ontario.
- Share-based compensation increased to \$1,653,245 for the year ended December 31, 2018, compared to \$nil for the period from January 19, 2017 to December 31, 2017. The increase is the result of 920,000 stock options granted during the year ended December 31, 2018 compared to none during the period from January 19, 2017 to December 31, 2017.
- Research and development increased to \$1,532,606 for the year ended December 31, 2018, compared to \$441,257 for the period from January 19, 2017 to December 31, 2017 which reflects the Corporation's increased level of research and development of CTX01, CTX02 and CTX03.
- During the year ended December 31, 2018, the Corporation increased the pace of its spending on its research and development programs. Currently Cardiol has two ongoing research programs: a basic research program at University of Alberta and a research program that commenced at the beginning of April at TecSalud. The TecSalud program is focused on conducting the necessary experimental research to support an application for Phase I clinical studies involving the Corporation's nanoformulations in development for heart failure. Additionally, during the second quarter, a development program was initiated with Dalton to focus on the scale-up of manufacturing of an oil-based formulation containing cannabidiol.
- Salaries and benefits increased to \$1,364,707 for the year ended December 31, 2018, compared
  to \$256,511 for the period from January 19, 2017 to December 31, 2017. The increase is the result
  of the Corporation hiring additional employees at increased salary levels in the current year due to
  the increased level of operations.
- Accretion and interest on convertible debentures increased to \$663,373 for the year ended December 31, 2018, compared to \$60,562 for the period from January 19, 2017 to December 31, 2017. The increase is the result of accretion on additional convertible debentures issued, prior to being converted, with face values of \$10,531,000 in May 2018 and \$2,400,000 in August 2018.
- Listing expense was \$397,528 for the year ended December 31, 2018. This expense related to the portion of IPO costs incurred considered to be attributable to the stock listing on the TSX.

### Three months ended December 31, 2018, compared to the three months ended December 31, 2017

For the three months ended December 31, 2018, the Corporation's net loss was \$9,073,590 compared to a net loss of \$588,260 for the three months ended December 31, 2017. The increase in net loss of \$8,485,330 is a result of the following:

- Change in derivative liability was a loss of \$5,635,573 for the three months ended December 31, 2018. The derivative liability related to the conversion feature of the debentures issued in 2018, as the result of the conversion price not being fixed. The loss is a result of the change in the fair value of the derivative liability at December 31, 2018. This item is a non-cash accounting expense which will not occur in 2019 due to the conversion of the debentures.
- Administration expense increased to \$731,852 for the three months ended December 31, 2018 compared to \$219,923 for the three months ended December 31, 2017. During the three months ended December 31, 2018, the Corporation incurred higher professional fees due to the costs associated with completing the IPO and the increased operating activity of the Corporation.
- Share-based compensation increased to \$895,960 for the three months ended December 31, 2018, compared to \$nil for the three months ended December 31, 2017. The increase is the result of the vesting of 920,000 stock options granted during the year ended December 31, 2018 compared to none during the period from January 19, 2017 to December 31, 2017.
- Salaries and benefits increased to \$577,675 for the three months ended December 31, 2018 compared to \$138,515 for the three months ended December 31, 2017. The increase is the result of the Corporation hiring additional employees at increased salary levels in the current period due to the increased level of operations.
- Listing expense was \$397,528 for the three months ended December 31, 2018. The expense related to the portion of IPO costs incurred considered to be attributable to the stock listing on the TSX.
- Investor relations and promotions increased to \$355,291 for the three months ended December 31, 2018 compared to \$74,076 for the three months ended December 31, 2017. During the three months ended December 31, 2018, the Corporation incurred higher costs associated with promoting the IPO.
- Accretion and interest on convertible debentures increased to \$268,900 for the three months ended
  December 31, 2018 compared to \$18,443 for the three months ended December 31, 2017. The
  increase is the result of accretion on additional convertible debentures issued, prior to being
  converted, with face values of \$10,531,000 in May 2018 and \$2,400,000 in August 2018.

### **Capital Management**

The Corporation manages its capital to ensure sufficient financial flexibility to achieve the ongoing business objectives including research activities, funding of future growth opportunities and pursuit of acquisitions.

The Corporation monitors its capital structure and makes adjustments according to market conditions in an effort to meet its objectives given the current outlook of the business and industry in general. The Corporation may manage its capital structure by issuing new shares, repurchasing outstanding shares, adjusting capital spending, or disposing of assets. The capital structure is reviewed by Management and the Board of Directors on an ongoing basis.

The Corporation considers its capital to be total shareholders' equity, comprising share capital, warrants, contributed surplus and the equity portion of convertible debentures less accumulated deficit which at December 31, 2018, totalled \$22,274,159 (December 31, 2017 – \$2,853,926).

The Corporation manages capital through its financial and operational forecasting processes. The Corporation reviews its working capital and forecasts its future cash flows based on operating expenditures, and other investing and financing activities. The forecast is updated based on activities related to its research programs. Information is provided to the Board of Directors.

As the Corporation does not have a credit facility, the Corporation is not currently subject to any capital requirements imposed by a lending institution or regulatory body. The Corporation expects that its capital resources will be sufficient to discharge its liabilities as of the current statement of financial position date.

### **Off-Balance-Sheet Arrangements**

As of the date of this MD&A, the Corporation does not have any off-balance-sheet arrangements that have, or are reasonably likely to have, a current or future effect on the results of operations or financial condition of the Corporation, including, and without limitation, such considerations as liquidity and capital resources.

### **Liquidity and Financial Position**

At December 31, 2018, Cardiol had \$16,731,500 in cash and cash equivalents (December 31, 2017 – \$2,356,524).

At December 31, 2018, accounts payable and accrued liabilities were \$2,141,398 (December 31, 2017 – \$176,714). The Corporation's cash and cash equivalents balances as at December 31, 2018 and December 31, 2017 are sufficient to pay these liabilities.

As at December 31, 2018, the Corporation had convertible debentures payable with an aggregate principal amount of \$400,000 (December 31, 2017 - \$400,000). The \$400,000 (December 31, 2017 - \$400,000) was convertible into 2,700,000 common shares at the holder's option at any time prior to the close of business on January 31, 2020 and was converted in January 2019.

The Corporation currently has no operating revenues and therefore must utilize its funds from financing transactions to maintain its capacity to meet ongoing operating activities.

As of December 31, 2017, December 31, 2018 and to the date of this MD&A, the cash resources of Cardiol are held with one Canadian chartered bank. The Corporation has no variable interest rate debt and its credit and interest rate risk is minimal. Accounts payable and accrued liabilities are short-term and non-interest-bearing.

#### For the 2018 Fiscal Period

Cash and cash equivalents used in operating activities were \$10,894,005 for the 2018 Fiscal Period. Operating activities were affected by a net loss of \$15,893,735 and the net change in non-cash working capital balances of \$(5,202,131) offset partially by non-cash adjustments of \$10,201,861. Non-cash adjustments mainly consisted of \$1,653,245 for share-based compensation, \$7,882,261 for change in derivative liability and \$450,055 for financing costs. Non cash working capital was mainly the result of increases in prepaid inventory of \$6,345,525, prepaid expenses of \$462,256 and commodity tax receivable of \$331,061, partially offset by an increase in accounts payable and accrued liabilities of \$1,964,684.

Cash and cash equivalents used in investing activities were \$13,791 for the 2018 Fiscal Period. This pertained to the purchase of equipment.

Cash and cash equivalents provided by financing activities were \$25,282,772 for the 2018 Fiscal Period, which represents net proceeds from the IPO of \$13,213,914, net proceeds from convertible debentures of \$12,068,808 and proceeds from stock options exercised of \$50.

### **Use of Working Capital**

As of December 31, 2018, Cardiol's working capital was \$21,885,246. Based on current projections, Cardiol believes that this amount is sufficient to meet its planned development activities for the fiscal year ending December 31, 2019. See "Outlook" above.

The Corporation has material commitments and obligations for cash resources set out below.

Contractual Obligations	Total (\$)	Up to 1 year (\$)	1 – 3 years (\$)	4 – 5 years (\$)	After 5 years (\$)
Amounts payable and					
other liabilities	2,141,398	2,141,398	Nil	Nil	Nil
Office lease (1)	23,110	23,110	Nil	Nil	Nil
CARO Development	,	,			
Agreement (2)	545,340	545,340	Nil	Nil	Nil
Total	2,709,848	2,709,848	Nil	Nil	Nil

#### Note:

(1) The Corporation has leased premises from third parties.

### **Related-Party Transactions**

(a) The Corporation entered into the following transactions with related parties:

### For the 2018 Fiscal Period

- (i) Included in research and development expense is \$206,255 for the year ended December 31, 2018 (year ended December 31, 2017 \$211,680) paid to a company Dalton Chemical Laboratories, Inc. operating as Dalton that is related to a director (Peter Pekos). Mr. Pekos is also the President and CEO of Dalton. As at December 31, 2018, \$9,852 (December 31, 2017 \$nil) was owed to this company and this amount was included in accounts payable and accrued liabilities. Cardiol entered into an exclusive master services agreement with Dalton for the exclusive supply of pharmaceutical cannabidiol, and Cardiol has subcontracted the manufacturing of its drug product candidates to Dalton.
- (ii) Included in administration is \$125,000 for the year ended December 31, 2018 (year ended December 31, 2017 \$278,600) for corporate advisory services, paid to a company (Fission Creative Solutions Inc., formerly known as Punchcast Inc.) related to a director (Terry Lynch). Fission Creative Solutions Inc. is controlled by a son of Terry Lynch. As well, included in share capital is \$nil (year ended December 31, 2017 \$34,000) of finders' fees paid to this company. The Corporation has no ongoing contractual or other commitment with Fission Creative Solutions Inc. at December 31, 2018.
- (iii) Included in administration is \$130,238 (year ended December 31, 2017 \$64,800) for Chief Financial Officer, accounting and other administrative services, paid to a company (lan S. Hulbert Professional Corporation) controlled by the former Chief Financial Officer of the Corporation. As at December 31, 2018, \$9,900 (December 31, 2017 \$11,300) was owed to this company and this amount was included in accounts payable and accrued liabilities. The Corporation has no ongoing contractual commitment with lan S. Hulbert Professional Corporation.

<sup>(2)</sup> Cardiol also entered into a USD\$3 million agreement, of which USD\$400,000 is payable in cash (paid subsequent to December 31, 2018). (See "Operations Highlights" above).

(b) Key management personnel are those persons having authority and responsibility for planning, directing, and controlling the activities of the Corporation directly or indirectly, including any Directors (executive and non-executive) of the Corporation. Remuneration of Directors and key management personnel of the Corporation, except as noted in (a) above, was as follows:

	Year ended December 31, 2018	Period from January 19, 2017 to December 31, 2017
	(\$)	(\$)
Salaries and benefits	1,157,702	182,924
Share-based payments	1,363,157	· -
	2,520,859	182,924

As at December 31, 2018, \$134,138 (December 31, 2017 - \$nil) was owed to key management personnel and this amount was included in accounts payable and accrued liabilities.

### Critical Accounting Judgments, Estimates, and Assumptions

The preparation of the Financial Statements requires Management to make certain estimates, judgments, and assumptions that affect the reported amounts of assets and liabilities at the date of the Financial Statements and reported amounts of expenses during the reporting period. Actual outcomes could differ from these estimates. The Financial Statements include estimates that, by their nature, are uncertain. The impacts of such estimates are pervasive throughout the Financial Statements and may require accounting adjustments based on future occurrences. Revisions to accounting estimates are recognized in the period in which the estimate is revised and future periods if the revision affects both current and future periods. These estimates are based on historical experience, current and future economic conditions, and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

### **Critical accounting estimates**

Significant assumptions about the future that Management has made that could result in a material adjustment to the carrying amounts of assets and liabilities, in the event that actual results differ from assumptions made, relate to, but are not limited to, the following:

- The inputs used in the Black-Scholes valuation model that were based on unobservable assumptions when the Corporation was private at the time of issuance of the equity instruments (share price and volatility) in accounting for share-based payment transactions. Share-based payments are valued on the date of grant;
- The valuation of the liability component of convertible debt is estimated using the prevailing market interest rate for similar non-convertible instruments at the date of issue. This amount is recorded as liability on an amortized cost basis using the effective interest method until extinguished upon conversion or at the instrument's maturity date.
- The valuation of the derivative liability is valued initial on grant and at each subsequent period end until conversion. The value was estimated initially using the Black-Scholes valuation model and immediately prior to conversion using the IPO price.
- The valuation of the income tax non-current asset would increase if there was virtual certainty that the tax benefit of net operating losses could be applied to future periods' taxable income. In the 2018 financial statements the amount of this unbooked benefit was \$2,094,000 (December 31, 2017 \$439,000).
- The valuation of the income tax current asset would increase if there was virtual certainty of realizing the tax benefit from Canadian investment tax credits ("ITCs") applicable to Canadian qualifying scientific research and experimental development ("SRED"). Virtual certainty has not been obtained for the 2017 and 2018 SRED ITC claim because the claims have not been filed. Management estimates that the 2017 and 2018 claims, once filed, will be approximately \$80,000 and \$255,000.

Intangible assets are comprised of the exclusive global license. Intangible assets are initially stated
at cost, less accumulated amortization and accumulated impairment losses. Intangible assets with
finite useful lives are amortized over their estimated useful lives. The exclusive global license's
useful life is 9 years.

### Critical accounting judgments

- Management applied judgment in determining the functional currency of the Corporation as Canadian dollars:
- Management's assessment of no indicators of impairment exist for intangible assets, based on the facts and circumstances that existed during the period; and
- Management applied judgment in determining the allocation of IPO costs between share issuance costs and listing expense.

### New standards not yet adopted and interpretations issued but not yet effective

IFRS 16 - Leases ("IFRS 16") was issued on January 13, 2016 and replaces IAS 17 – Leases as well as some lease related interpretations. With certain exceptions for leases under twelve months in length or for assets of low value, IFRS 16 states that upon lease commencement a lessee recognizes a right-of-use asset and a lease liability. The right-of-use asset is initially measured at the amount of the liability plus any initial direct costs. After lease commencement, the lessee shall measure the right-of-use asset at cost less accumulated depreciation and accumulated impairment. A lessee shall either apply IFRS 16 with full retrospective effect or alternatively not restate comparative information but recognize the cumulative effect of initially applying IFRS 16 as an adjustment to opening equity at the date of initial application. IFRS 16 requires that lessors classify each lease as an operating lease or a finance lease. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset. Otherwise it is an operating lease. IFRS 16 is effective for annual periods beginning on or after January 1, 2019. The Corporation does not expect adoption to have any material impact.

### **Share Capital**

Other than as described below, as of the date of this MD&A, there are no equity or voting securities of the Corporation outstanding, and no securities convertible into, or exercisable or exchangeable for, voting or equity securities of the Corporation.

As of the date of this MD&A, the outstanding capital of the Corporation includes 25,801,256 issued and outstanding common shares, 1,020,000 Meros Special Warrants convertible automatically into common shares (upon the Corporation achieving the Meros Milestone) for no additional consideration pursuant to the Meros License Agreement and stock options and warrants as shown below:

#### Stock Options

Expiry date	Exercise price (\$)	Options outstanding	Options exercisable
July 24, 2020	5.34	125,000	-
January 24, 2024	5.34	100,000	-
August 16, 2025	5.00	200,000	200,000
August 30, 2025	5.00	580,000	20,000
January 2, 2026	4.30	150,000	150,000
January 24, 2026	5.34	60,000	-
Total		1,215,000	370,000

### Warrants

Expiry date	Exercise price (\$)	Warrants outstanding
December 20, 2019	5.00	202,472
December 20, 2020	6.50	3,374,544
August 31, 2022	4.00	824,000
Total		4,378,544

#### **Financial Instruments**

### Recognition

The Corporation recognizes a financial asset or financial liability on the statement of financial position when it becomes party to the contractual provisions of the financial instrument. Financial assets are initially measured at fair value, and are derecognized either when the Corporation has transferred substantially all the risks and rewards of ownership of the financial asset, or when cash flows expire. Financial liabilities are initially measured at fair value and are derecognized when the obligation specified in the contract is discharged, cancelled or expired.

A write-off of a financial asset (or a portion thereof) constitutes a derecognition event. Write-off occurs when the Corporation has no reasonable expectations of recovering the contractual cash flows on a financial asset.

#### **Classification and Measurement**

The Corporation determines the classification of its financial instruments at initial recognition. Financial assets and financial liabilities are classified according to the following measurement categories:

- those to be measured subsequently at fair value, either through profit or loss ("FVTPL") or through other comprehensive income ("FVTOCI"); and,
- those to be measured subsequently at amortized cost.

The classification and measurement of financial assets after initial recognition at fair value depends on the business model for managing the financial asset and the contractual terms of the cash flows. Financial assets that are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding, are generally measured at amortized cost at each subsequent reporting period. All other financial assets are measured at their fair values at each subsequent reporting period, with any changes recorded through profit or loss or through other comprehensive income (which designation is made as an irrevocable election at the time of recognition).

After initial recognition at fair value, financial liabilities are classified and measured at either:

- amortized cost;
- FVTPL, if the Corporation has made an irrevocable election at the time of recognition, or when required (for items such as instruments held for trading or derivatives); or,
- FVTOCI, when the change in fair value is attributable to changes in the Corporation's credit risk.

The Corporation reclassifies financial assets when and only when its business model for managing those assets changes. Financial liabilities are not reclassified.

Transaction costs that are directly attributable to the acquisition or issuance of a financial asset or financial liability classified as subsequently measured at amortized cost are included in the fair value of the

instrument on initial recognition. Transaction costs for financial assets and financial liabilities classified at fair value through profit or loss are expensed in profit or loss.

The Corporation's financial asset consists of cash and cash equivalents and interest receivable, which are classified and measured at amortized cost. The Corporation's financial liabilities consist of accounts payable and accrued liabilities and convertible debt, which are classified and measured at amortized cost.

#### Fair Value

The Company provides information about its financial instruments measured at fair value at one of three levels according to the relative reliability of the inputs used to estimate the fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The three levels of the fair value hierarchy are as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: inputs other than quotes prices included in Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Company's financial instruments measured at fair value, which consisted of the derivative liability allocated to share capital on the IPO, was considered level one in the fair value hierarchy and was measured at the IPO price.

### **Financial Instrument Risks**

The Corporation's activities expose it to a variety of financial risks: credit risk, liquidity risk, and market risk (including interest rate and foreign currency risk). These financial risks are in addition to the risks set out under "Risk Factors".

Risk management is carried out by the Corporation's Management team under policies approved by the Board of Directors. The Board of Directors also provides regular guidance for overall risk management.

There were no changes to credit risk, liquidity risk, or market risk for the 2018 Fiscal Period.

#### Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The Corporation's financial instruments that are exposed to concentrations of credit risk relate primarily to cash and cash equivalents and interest receivable.

The Corporation mitigates its risk by maintaining its funds with large reputable financial institutions, from which Management believes the risk of loss to be minimal. Interest receivable relates to guaranteed investment certificates held with large reputable financial institutions. The Corporation's management considers that all the above financial assets are of good credit quality.

### Liquidity risk

Liquidity risk is the risk that the Corporation encounters difficulty in meeting its obligations associated with financial liabilities. Liquidity risk includes the risk that, as a result of operational liquidity requirements, the Corporation will not have sufficient funds to settle a transaction on the due date; will be forced to sell financial assets at a value which is less than what they are worth; or may be unable to settle or recover a financial asset. Liquidity risk arises from accounts payable and accrued liabilities, convertible debenture and commitments. The Corporation limits its exposure to this risk by closely monitoring their cash flow.

### **Market risk**

Market risk is the risk of loss that may arise from changes in market factors such as interest rates and foreign exchange rates.

#### (a) Interest rate risk

The Corporation currently does not have any short-term or long-term debt that is variable interest bearing and, as such, the Corporation's current exposure to interest rate risk is minimal.

### (b) Foreign currency risk

Foreign exchange risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in the foreign exchange rates. The Corporation enters into foreign currency purchase transactions and has assets that are denominated in foreign currencies and thus is exposed to the financial risk of earnings fluctuations arising from changes in foreign exchange rates and the degree of volatility of these rates. The Corporation does not currently use derivative instruments to reduce its exposure to foreign currency risk.

The Corporation holds balances in U.S. dollars which could give rise to exposure to foreign exchange risk. Sensitivity to a plus or minus 10% change in the foreign exchange rate of the U.S. dollar against the Canadian dollar would affect the reported loss and comprehensive loss by approximately \$285,000 (December 31, 2017 - \$4,500).

### **Commitments and Contingency**

The Corporation has leased premises from third parties. The minimum annual lease payments as at December 31, 2017 were \$24,000 and as at December 31, 2018 were \$23,110.

### **Breakdown of Expensed Research and Development**

	Year ended December 31, 2018 (\$)	Period from January 19, 2017 to December 31, 2017 (\$)
Contract research	1,007,332	369,010
Wages	276,984	60,567
Supplies	206,255	11,680
Regulatory	42,035	-
Total	1,532,606	441,257

### **Breakdown of Operating Expenses**

	Year ended December 31, 2018 (\$)	Period from January 19, 2017 to December 31, 2017 (\$)
Administration	1,935,503	680,498
Depreciation of equipment	7,048	3,135
Amortization of intangible assets	84,444	50,206
Accretion and interest on convertible debentures	663,373	60,562
Investor relations and promotions	507,841	163,823
Salaries and benefits	1,364,707	256,511
Transfer agent and regulatory	10,817	-
Share-based compensation	1,653,245	-
Total	6,226,978	1,214,735

### **Breakdown of Intangible Assets**

	As at December 31, 2018 (\$)	As at December 31, 2017 (\$)
Exclusive global license agreement	767,228	767,228
Accumulated amortization	(134,650)	(50,206)
Carrying value	632,578	717,022

#### **Risk Factors**

The Corporation's prospects depend on the success of its nanotherapeutic and GBM product candidates which are at early stages of development, and from sales of our pharmaceutical cannabidiol products. We do not expect to generate revenue for several years, if at all, from the nanotherapeutic and GBM product candidates.

Given the early stage of development of our nanotherapeutics and GBM product candidates, we can make no assurance that our research and development programs will result in regulatory approval or commercially viable products. To achieve profitable operations, we, alone or with others, must successfully develop, gain regulatory approval, and market our future products. We currently have no products that have been approved by the FDA, Health Canada, or any similar regulatory authority. To obtain regulatory approvals for our product candidates being developed and to achieve commercial success, clinical trials must demonstrate that the product candidates are safe for human use and that they demonstrate efficacy. We have no products or technologies which are currently in human clinical trials.

Many product candidates never reach the stage of clinical testing and even those that do have only a small chance of successfully completing clinical development and gaining regulatory approval. Product candidates may fail for a number of reasons, including, but not limited to, being unsafe for human use or due to the failure to provide therapeutic benefits equal to or better than the standard of treatment at the time of testing. Positive results of early preclinical research may not be indicative of the results that will be obtained in later stages of preclinical or clinical research. Similarly, positive results from early stage clinical trials may not be indicative of favorable outcomes in later-stage clinical trials. We can make no assurance that any future studies, if undertaken, will yield favorable results. The early stage of our nanotherapeutic and GBM product development makes it particularly uncertain whether any of our product development efforts will prove to be successful and meet applicable regulatory requirements, and whether any of our product candidates will receive the requisite regulatory approvals, be capable of being manufactured at a reasonable cost or be successfully marketed. If we are successful in developing our current and future product candidates into approved products, we will still experience many potential obstacles such as the need to develop or obtain manufacturing, marketing and distribution capabilities. If we are unable to successfully commercialize any of our products, our financial condition and results of operations may be materially and adversely affected.

We currently have no products for commercial sale or licensed for commercial sale. Our only current potential source of revenue is the potential sale of our pharmaceutical cannabidiol, and significant efforts are needed to achieve sales of such product and consequently initial revenues from the sale of pharmaceutical cannabidiol are not expected until the second half of 2019. As a result, we are not currently generating revenue from our products, and may never generate significant revenue from the sale or licensing of our products, or otherwise.

### The Continued Development of the Corporation will Require Additional Financing

There is no guarantee that the Corporation will be able to execute on its strategy. The continued development of the Corporation will require additional financing. The failure to raise such capital could result in the delay or indefinite postponement of current business strategy or the Corporation ceasing to carry on business. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favourable to the Corporation. If additional

funds are raised through issuances of equity or convertible debt securities, existing shareholders could suffer significant dilution, and any new equity securities issued could have rights, preferences, and privileges superior to those of holders of common shares. In addition, from time to time, the Corporation may enter into transactions to acquire assets or the shares of other Companies. These transactions may be financed wholly or partially with debt, which may temporarily increase the Corporation's debt levels above industry standards. Any debt financing secured in the future could involve restrictive covenants relating to capital raising activities and other financial and operational matters, which may make it more difficult for the Corporation to obtain additional capital and to pursue business opportunities, including potential acquisitions. Debt financings may contain provisions, which, if breached, may entitle lenders to accelerate repayment of loans and there is no assurance that the Corporation would be able to repay such loans in such an event or prevent the enforcement of security granted pursuant to such debt financing. The Corporation may require additional financing to fund its operations to the point where it is generating positive cash flows. Negative cash flow may restrict the Corporation's ability to pursue its business objectives.

In the event of bankruptcy, liquidation, or reorganization of Cardiol, holders of its debt and its trade creditors will generally be entitled to payment of their claims from the assets of Cardiol before any assets are made available for distribution to Cardiol or its shareholders. The common shares are effectively subordinated to the debt and other obligations of Cardiol.

### **Negative Cash Flow from Operations**

During the 2018 Fiscal Period, the Corporation had negative cash flow from operating activities. Although the Corporation anticipates it will have positive cash flow from operating activities in future periods, to the extent that the Corporation has negative cash flow in any future period, current working capital may be used to fund such negative cash flow from operating activities, if any.

We intend to expend our limited resources to pursue our current product candidates, and may fail to capitalize on other product candidates that may be more profitable or for which there is a greater likelihood of success

Because we have limited financial and managerial resources, we are focusing on research programs relating to our current product candidates, which concentrates the risk of product failure in the event that our current product candidates prove to be unsafe or ineffective or inadequate for clinical development or commercialization. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on proprietary research and development programs relating to our current product candidates may not yield any commercially viable products.

### We have a history of operating losses and may never achieve or maintain profitability in the future

Cardiol's net loss for the fiscal period ended December 31, 2017 was \$1,660,926 and for the year ended December 31, 2018 was \$15,893,735. We have not generated any significant revenue to date and it is possible that we will never have sufficient product sales revenue (if any) to achieve profitability. We expect to continue to incur losses for at least the next several years as we or our collaborators and licensees pursue clinical trials and research and development efforts. To become profitable, we, either alone or with our collaborators and licensees, must successfully market our pharmaceutical cannabidiol and develop, manufacture and market our current product candidates, as well as continue to identify, develop, manufacture and market new product candidates. It is possible that we will never have significant product sales revenue or receive royalties on our licensed product candidates. If funding is insufficient at any time in the future, we may not be able to develop or commercialize our products, take advantage of business opportunities, or respond to competitive pressures.

We currently do not earn any revenues from our drug candidates and are therefore considered to be in the development stage. The continuation of our research and development activities and the commercialization of the targeted therapeutic products are dependent upon our ability to successfully finance and complete our research and development programs through a combination of equity financing and payments from strategic partners. We have no current sources of significant payments from strategic partners.

### We rely on Management and need additional key personnel to grow our business, and the loss of key employees or inability to hire key personnel could harm our business

The loss of David Elsley, our President and CEO, or other key members of our staff, could harm us. We also depend on our scientific and clinical collaborators and advisors, all of whom have outside commitments that may limit their availability to us. In addition, we believe that our future success will depend in large part upon our ability to attract and retain highly skilled scientific, managerial, medical, clinical, and regulatory personnel, particularly as we expand our activities and seek regulatory approvals for clinical trials. We routinely enter into consulting agreements with our scientific and clinical collaborators and advisors, key opinion leaders, and academic partners in the ordinary course of our business. We also enter into contractual agreements with physicians and institutions who will recruit patients into our clinical trials on our behalf in the ordinary course of our business. Notwithstanding these arrangements, we face significant competition for these types of personnel from other companies, research and academic institutions, government entities, and other organizations. We cannot predict our success in hiring or retaining the personnel we require for continued growth. The loss of the services of any of our executive officers or other key personnel could potentially harm our business, operating results or financial condition.

### Clinical trials for our product candidates are expensive, time consuming, uncertain and susceptible to change, delay or termination

Clinical trials are expensive, time consuming and difficult to design and implement. Even if the results of our clinical trials are favorable, the clinical trials for a number of our product candidates are expected to continue for several years and may take significantly longer to complete. In addition, we, the FDA, Health Canada or other regulatory authorities, including state and local authorities may suspend, delay or terminate our clinical trials at any time, require us to conduct additional clinical trials, require a particular clinical trial to continue for a longer duration than originally planned, require a change to our development plans such that we conduct clinical trials for a product candidate in a different order, e.g., in a step-wise fashion rather than running two trials of the same product candidate in parallel, or the DEA could suspend or terminate the registrations and quota allotments we require in order to procure and handle controlled substances, for various reasons. Any of the foregoing could have a material adverse effect on our business, results of operations, and financial condition.

### Our Activities are Subject to Comprehensive Regulation, including under Healthcare Laws and Compliance Requirements

In the United States, our activities are potentially subject to additional regulation by various federal, state, and local authorities in addition to the FDA, including, among others, the Centers for Medicare and Medicaid Services, other divisions of Health and Human Services, or HHS, (for example, the Office of Inspector General), the Department of Justice, and individual U.S. Attorney offices within the Department of Justice, and state and local governments.

In Canada, our activities are potentially subject to additional regulation by various federal and provincial authorities in addition to Health Canada, including among others, the Ontario Cannabis Store (OCS) and publicly-mandated organizations given a provincial sales license under the Cannabis Act (Canada).

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the federal and state laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including criminal and significant civil monetary penalties, damages, fines, imprisonment, exclusion from participation in government programs, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, private "qui tam" actions brought by individual whistleblowers in the name of the government, or refusal to allow us to enter into supply contracts, including government contracts, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that any of our products are sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include,

for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

If clinical trials of our product candidates fail to demonstrate safety and efficacy to the satisfaction of regulatory authorities or do not otherwise produce positive results, we would incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, we must conduct preclinical studies in animals and extensive clinical trials in humans to demonstrate the safety and efficacy of the product candidates. Clinical testing is expensive and difficult to design and implement, can take many years to complete, and has uncertain outcomes. The outcome of preclinical studies and early clinical trials may not predict the success of later clinical trials and interim results of a clinical trial do not necessarily predict final results.

A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials due to lack of efficacy or unacceptable safety profiles, notwithstanding promising results in earlier trials. We do not know whether the clinical trials we may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market any of our product candidates in any jurisdiction. A product candidate may fail for safety or efficacy reasons at any stage of the testing process. A major risk we face is the possibility that none of our product candidates under development will successfully gain market approval from the FDA, Health Canada, or other regulatory authorities, resulting in us being unable to derive any commercial revenue from them after investing significant amounts of capital in multiple stages of preclinical and clinical testing.

### If we experience delays in clinical testing, we will be delayed in commercializing our product candidates, and our business may be substantially harmed

We cannot predict whether any clinical trials will begin as planned, will need to be restructured, or will be completed on schedule, or at all. Our product development costs will increase if we experience delays in clinical testing. Significant clinical trial delays could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before us, which would impair our ability to successfully commercialize our product candidates and may harm our financial condition, results of operations, and prospects. The commencement and completion of clinical trials for our products may be delayed for a number of reasons, including delays related, but not limited, to:

- failure by regulatory authorities to grant permission to proceed or placing the clinical trial on hold:
- difficulties obtaining institutional review board or ethics committee approval to conduct a clinical trial at a prospective site;
- import/export and research restrictions for cannabinoid-based pharmaceuticals delaying or preventing clinical trials in various geographical jurisdictions;
- patients failing to enroll or remain in our trials at the rate we expect;
- suspension or termination of clinical trials by regulators for many reasons, including concerns about patient safety or failure of our contract manufacturers to comply with cGMP requirements:
- delays or failure to obtain clinical supply from contract manufacturers of our products necessary to conduct clinical trials;
- product candidates demonstrating a lack of safety or efficacy during clinical trials;
- patients choosing an alternative treatment for the indications for which we are developing any of our
  - product candidates or participating in competing clinical trials and/or scheduling conflicts with participating clinicians;
- patients failing to complete clinical trials due to dissatisfaction with the treatment, side effects or other reasons;

- reports of clinical testing on similar technologies and products raising safety and/or efficacy concerns:
- clinical investigators not performing our clinical trials on their anticipated schedule, dropping out of a trial, or employing methods not consistent with the clinical trial protocol, regulatory requirements or other third parties not performing data collection and analysis in a timely or accurate manner;
- failure of our contract research organizations ("CRO"), to satisfy their contractual duties or meet expected deadlines;
- inspections of clinical trial sites by regulatory authorities or Institutional Review Boards ("IRB"), or ethics committees finding regulatory violations that require us to undertake corrective action, resulting in suspension or termination of one or more sites or the imposition of a clinical hold on the entire study;
- one or more IRB or ethics committees rejecting, suspending or terminating the study at an investigational site, precluding enrollment of additional subjects, or withdrawing its approval of the trial: or
- failure to reach agreement on acceptable terms with prospective clinical trial sites.

In addition, a clinical trial may be suspended or terminated by us, the FDA, IRB, ethics committees, data safety monitoring boards or other foreign regulatory authorities overseeing the clinical trial at issue or other regulatory authorities due to a number of factors, including, among others:

- failure to conduct the clinical trial in accordance with regulatory requirements or our clinical trial protocols:
- inspection of the clinical trial operations or clinical trial sites by the FDA, the DEA, the European Medicines Agency or other foreign regulatory authorities that reveals deficiencies or violations that require us to undertake corrective action, including the imposition of a clinical hold;
- unforeseen safety issues, including any safety issues that could be identified in our ongoing toxicology studies;
- adverse side effects or lack of effectiveness: and
- changes in government regulations or administrative actions.

Our product development costs will increase if we experience delays in testing or approval or if we need to perform more or larger clinical trials than planned. Additionally, changes in regulatory requirements and policies may occur, and we may need to amend study protocols to reflect these changes. Amendments may require us to resubmit our study protocols to regulatory authorities or IRB or ethics committees for re-examination, which may impact the cost, timing, or successful completion of that trial. Delays or increased product development costs may have a material adverse effect on our business, financial condition, and prospects.

### Negative results from clinical trials or studies of others and adverse safety events involving the targets of our products may have an adverse impact on our future commercialization efforts

From time to time, studies or clinical trials on various aspects of biopharmaceutical products are conducted by academic researchers, competitors, or others. The results of these studies or trials, when published, may have a significant effect on the market for the biopharmaceutical product that is the subject of the study. The publication of negative results of studies or clinical trials or adverse safety events related to our product candidates, or the therapeutic areas in which our product candidates compete, could adversely affect the price of the common shares and our ability to finance future development of our product candidates, and our business and financial results could be materially and adversely affected.

#### We may not achieve our projected development goals in the time frames we announce and expect

We set goals for, and make public statements regarding, the expected timing of the accomplishment of objectives material to our success, the commencement and completion of clinical trials and the expected costs to develop our product candidates. The actual timing and costs of these events can vary dramatically due to factors within and beyond our control, such as delays or failures in our clinical trials, issues related

to the manufacturing of drug supply, uncertainties inherent in the regulatory approval process, market conditions and interest by partners in our product candidates among other things. We may not make regulatory submissions or receive regulatory approvals as planned; our clinical trials may not be completed; or we may not secure partnerships for any of our product candidates. Any failure to achieve one or more of these milestones as planned would have a material adverse effect on our business, financial condition, and results of operations.

#### Unpredictable and volatile market price for common shares and Warrants

The market price for common shares and Warrants may be volatile and subject to wide fluctuations in response to numerous factors, many of which are beyond our control, including the following:

- actual or anticipated fluctuations in our quarterly results of operations;
- recommendations by securities research analysts;
- changes in the economic performance or market valuations of companies in the industry in which we operate;
- addition or departure of our executive officers and other key personnel;
- release or expiration of lock-up or other transfer restrictions on outstanding common shares;
- sales or perceived sales of additional common shares;
- significant acquisitions or business combinations, strategic partnerships, joint ventures, or capital commitments by or involving us or our competitors;
- operating and share price performance of other companies that investors deem comparable to us
- fluctuations to the costs of vital production materials and services;
- changes in global financial markets and global economies and general market conditions, such as interest rates and pharmaceutical product price volatility;
- operating and share price performance of other companies that investors deem comparable to the Corporation or from a lack of market comparable companies; and
- news reports relating to trends, concerns, technological or competitive developments, regulatory changes, and other related issues in our industry or target markets.

Financial markets have recently experienced significant price and volume fluctuations that have particularly affected the market prices of equity securities of companies and that have often been unrelated to the operating performance, underlying asset values, or prospects of such companies. Accordingly, the market price of the common shares and/or Warrants may decline even if our operating results, underlying asset values or prospects have not changed. Additionally, these factors, as well as other related factors, may cause decreases in asset values that are deemed to be other than temporary, which might result in impairment losses. There can be no assurance that continuing fluctuations in price and volume will not occur. If such increased levels of volatility and market turmoil continue, our operations could be adversely affected, and the trading price of the common shares and/or Warrants might be materially adversely affected.

### Securities or industry analysts may publish inaccurate or unfavorable research reports, stock price and volume could decline

The trading market for our common shares and Warrants will depend in part on the research and reports that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on the Corporation. If no securities or industry analysts commence coverage of the Corporation, the trading price for our common shares and Warrants would likely be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who cover us downgrade our common shares and Warrants or publish inaccurate or unfavorable research about our business, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our share price and trading volume to decline.

### If we fail to adequately protect or enforce our intellectual property rights or secure rights to patents of others, the value of our intellectual property rights would diminish

Our success, competitive position, and future revenues will depend in part on our ability and the abilities of our licensors to obtain and maintain patent protection for our products, methods, processes, and other technologies, to preserve our trade secrets, to prevent third parties from infringing on our proprietary rights, and to operate without infringing the proprietary rights of third parties.

To date, we have exclusive rights to certain Canadian, U.S. and other foreign intellectual property. We anticipate filing additional patent applications in Canada, the U.S. and in other countries, as appropriate. However, we cannot predict:

- the degree and range of protection any patents will afford us against competitors, including whether third parties will find ways to invalidate or otherwise circumvent our patents;
- if and when patents will issue;
- whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications; or
- whether we will need to initiate litigation or administrative proceedings which may be costly whether we win or lose.

Our success also depends upon the skills, knowledge, and experience of our scientific and technical personnel, our consultants and advisors, as well as our licensors and contractors. To help protect our proprietary know-how and our inventions for which patents may be unobtainable or difficult to obtain, we rely on trade-secret protection and confidentiality agreements. To this end, it is our policy generally to require our employees, consultants, advisors, and contractors to enter into agreements which prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries, and inventions important to our business. These agreements may not provide adequate protection for our trade secrets, know-how, or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of such information. If any of our trade secrets, know-how, or other proprietary information is disclosed, the value of our trade secrets, know-how, and other proprietary rights would be significantly impaired and our business and competitive position would suffer.

Owning a patent does not per se prevent competition. To stop third-party infringement, a patent owner and/or licensee must take steps to enforce the patent through court proceedings. This can be a very lengthy and costly process and the outcome may be uncertain.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements

The Canadian Intellectual Property Office ("CIPO") and various foreign national or international patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. Periodic maintenance fees on any issued patent are due to be paid to CIPO and various foreign national or international patent agencies in several stages over the lifetime of the patent. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of patent rights include, but are not limited to, failure to timely file national and regional stage patent applications based on our international patent application, failure to respond to official actions within prescribed time limits, non-payment of fees, and failure to properly legalize and submit formal documents. If we fail to maintain the patents and patent applications covering our product candidates, our competitors might be able to enter the market, which would have a material adverse effect on our business.

While a patent may be granted by a national patent office, there is no guarantee that the granted patent is valid. Options exist to challenge the validity of the patent which, depending upon the jurisdiction, may include re-examination, opposition proceedings before the patent office, and/or invalidation proceedings before the relevant court. Patent validity may also be the subject of a counterclaim to an allegation of patent infringement.

Pending patent applications may be challenged by third parties in protest or similar proceedings. Third parties can typically submit prior art material to patentability for review by the patent examiner. Regarding Patent Cooperation Treaty applications, a positive opinion regarding patentability issued by the International Searching Authority does not guarantee allowance of a national application derived from the Patent Cooperation Treaty application. The coverage claimed in a patent application can be significantly reduced before the patent is issued, and the patent's scope can be modified after issuance. It is also possible that the scope of claims granted may vary from jurisdiction to jurisdiction.

The grant of a patent does not have any bearing on whether the invention described in the patent application would infringe the rights of earlier filed patents. It is possible to both obtain patent protection for an invention and yet still infringe the rights of an earlier granted patent.

# We may become subject to claims by third parties asserting that we or our employees have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property

Our commercial success depends upon our ability to develop, manufacture, market and sell our product candidates, and to use our related proprietary technologies without violating the intellectual property rights of others. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our product candidates, including interference or derivation proceedings before CIPO, United States Patent and Trademark Office and other applicable patents offices in foreign jurisdictions. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future. If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue commercializing our product candidates. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Under certain circumstances, we could be forced, including by court order, to cease commercializing the applicable product candidate. In addition, in any such proceeding or litigation, we could be found liable for monetary damages. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Any claims by third parties that we have misappropriated their confidential information or trade secrets could have a similar negative impact on our business.

### We may not be able to protect our intellectual property rights throughout the world

Filing, prosecuting, and defending patents on all of our product candidates throughout the world would be prohibitively expensive. Therefore, we have filed applications and/or obtained patents only in key markets, such as the United States, Canada, and certain countries in Europe. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and their products may compete with ours.

# We rely and will continue to rely on third parties to conduct and monitor many of our preclinical studies and our clinical trials, and their failure to perform as required could cause substantial harm to our business

We rely and will continue to rely on third parties to conduct a significant portion of our preclinical and clinical development activities. Preclinical activities include in vivo studies providing access to specific disease models, pharmacology and toxicology studies, and assay development. Clinical development activities include trial design, regulatory submissions, clinical patient recruitment, clinical trial monitoring, clinical data management and analysis, safety monitoring and project management, contract manufacturing, and quality assurance. If there is any dispute or disruption in our relationship with third parties, or if they are unable to

provide quality services in a timely manner and at a feasible cost, our active development programs will face delays. Further, if any of these third parties fails to perform as we expect or if their work fails to meet regulatory requirements, our testing could be delayed, cancelled, or rendered ineffective.

Our product candidates contain compounds that are classified as "controlled substances" in jurisdictions outside of Canada and are classified as cannabis in Canada. Outside of Canada they will be subject to controlled substance laws and regulations; within Canada they will be subject to the Cannabis Act and Regulations. In all jurisdictions, failure to receive necessary approvals may delay the launch of our products and failure to comply with these laws and regulations may adversely affect the results of our business operations.

Our product candidates contain substances related to the cannabis plant and are subject to the Cannabis Act and Regulations in Canada. As a pharmaceutical product, cannabidiol will be subject to both the Food and Drugs Act and Regulations and the Cannabis Act and Regulations. This will include the need for an establishment licence, import and export permits, and extensive record keeping.

In addition, since our product candidates contain controlled substances/cannabis, their regulatory approval may generate public controversy. Political and social pressures and adverse publicity could lead to delays in approval of, and increased expenses for our product candidates. These pressures could also limit or restrict the introduction and marketing of our product candidates. Adverse publicity from cannabis misuse or adverse side effects from cannabis or other cannabinoid products may adversely affect the commercial success or market penetration achievable for our product candidates. The nature of our business attracts a high level of public and media interest, and in the event of any resultant adverse publicity, our reputation may be harmed. Furthermore, if our product candidates are classified as "controlled substances", they may be subject to import/export and research restrictions that could delay or prevent the development of Cardiol's products in various geographical jurisdictions.

### Our ability to research, develop, and commercialize products is dependent on our ability to obtain and maintain licenses relating to possession and supply of controlled substances

Our research and manufacturing facilities are located in Canada. In Canada various licenses are required to produce pharmaceutical cannabinoids. Our continued ability to research, develop, and commercialize our product candidates is dependent on our ability to obtain, and subsequently maintain, licenses relating to possession and supply of controlled substances.

### Controlled substance legislation differs between countries and legislation in certain countries may restrict or limit ability to sell products

Most countries are parties to the Single Convention on Narcotic Drugs 1961, which governs international trade and domestic control of narcotic substances, including cannabis. Countries may interpret/implement their treaty obligations in a way that creates a legal obstacle to our obtaining marketing approval for our product candidates in those countries. These countries may not be willing or able to amend or otherwise modify their laws and regulations to permit our product candidates to be marketed, or achieving such amendments to the laws and regulations may take a prolonged period of time.

### Changes in laws and regulations

The Corporation endeavours to comply with all relevant laws, regulations and guidelines. To the Corporation's knowledge, it is in compliance with all such laws, regulations, and guidelines as described elsewhere in this MD&A.

On June 30, 2016, the Government of Canada established the Task Force on Cannabis Legalization and Regulation to seek input on the design of a new system to legalize, strictly regulate, and restrict access to adult-use recreational cannabis. On December 13, 2016, the Task Force completed its review and published a report outlining its recommendations.

On April 13, 2017, the federal government of Canada introduced the Cannabis Act. On June 20, 2018, the Senate approved the Cannabis Act and the Act received Royal Assent on June 21, 2018. The Cannabis Act came into effect on October 17, 2018. The Cannabis Act creates a strict legal framework for controlling the production, distribution, sale and possession of recreational cannabis in Canada. The Cannabis Act lifts the ban on the recreational use of cannabis in Canada dating back to 1923. The impact of any such new legislative system on the medical cannabis industry and the Corporation's business plan and operations is uncertain.

In addition, with the recent coming into effect of the Cannabis Act, there is no guarantee that provincial legislation regulating the distribution and sale of cannabis for recreational purposes will be enacted according to the terms announced by such provinces, or at all, or that any such legislation, if enacted, will create the opportunities for growth anticipated by the Corporation. For example, the Provinces of Ontario (Canada's most populous province), Québec, and New Brunswick have announced sales and distribution models that would create government-controlled monopolies over the legal retail and distribution of cannabis for recreational purposes in such provinces, which could limit the Corporation's opportunities in those provinces. On August 13, 2018, the Ontario government announced that it will consult with various government agencies, community groups, and industry stakeholders in order to structure a private retail model in Ontario for cannabis by April 2019. Until then, the Ontario Cannabis Store (a government run online store) will be the sole source of lawful adult use cannabis in Ontario.

### Tax and accounting requirements may change in ways that are unforeseen to the Corporation and the Corporation may face difficulty or be unable to implement and/or comply with any such changes

The Corporation is subject to numerous tax and accounting requirements, and changes in existing accounting or taxation rules or practices, or varying interpretations of current rules or practices, could have a significant adverse effect on the Corporation's financial results, the manner in which it conducts its business, or the marketability of any of its products. In the future, the geographic scope of the Corporation's business may expand, and such expansion will require the Corporation to comply with the tax laws and regulations of multiple jurisdictions. Requirements as to taxation vary substantially among jurisdictions. Complying with the tax laws of these jurisdictions can be time consuming and expensive and could potentially subject the Corporation to penalties and fees in the future if the Corporation were to inadvertently fail to comply. In the event the Corporation was to inadvertently fail to comply with applicable tax laws, this could have a material adverse effect on the business, results of operations, and financial condition of the Corporation.

### Management may not be able to successfully implement adequate internal controls over financial reporting ("ICFR")

Proper systems of internal controls over financial accounting and disclosure are critical to the operation of a public company. However, the Corporation does not expect that its Disclosure, Controls, and Procedures or ICFR will prevent all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Due to the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and may not be detected in a timely manner or at all. If the Corporation cannot provide reliable financial reports or prevent fraud, its reputation and operating results could be materially adversely affected, which could cause investors to lose confidence in the Corporation's reported financial information, which in turn could result in a reduction in the value of the common shares.

### Medical research of cannabinoids remains in early stages

Research in Canada, the U.S., and internationally regarding the medical benefits, viability, safety, efficacy, and dosing of cannabinoids remains in early stages. There have been relatively few clinical trials on the

benefits of cannabinoids. The statements made in this MD&A concerning the potential medical benefits of cannabinoids are based on published articles and reports with details of research studies and clinical trials. As a result, the statements made in this MD&A are subject to the experimental parameters, qualifications, and limitations in the studies that have been completed.

Although the Corporation believes that the articles and reports with details of research studies and clinical trials referenced in this MD&A reasonably support its beliefs regarding the medical benefits, viability, safety, efficacy, and dosing of cannabinoids as set out in this MD&A, future research and clinical trials may prove such statements to be incorrect, or could raise concerns regarding and perceptions relating to, cannabinoids. Given these risks, uncertainties and assumptions, undue reliance should not be placed on such articles and reports. Future research studies and clinical trials may draw opposing conclusions to those stated in this MD&A or reach negative conclusions regarding the viability, safety, efficacy, dosing, social acceptance or other facts and perceptions related to cannabinoids, which could have a material adverse effect on the demand for the Corporation's products and therefore materially impact the business, financial condition, and operating results of the Corporation.

# Pharmaceutical cannabinoid and other product candidates, if approved, may be unable to achieve the expected market acceptance and, consequently, limit our ability to generate revenue from new products

Even when product development is successful and regulatory approval has been obtained, our ability to generate significant revenue depends on the acceptance of our products by physicians and patients. We cannot assure you that our pharmaceutical cannabinoid product candidates will achieve the expected market acceptance and revenue if and when they obtain the requisite regulatory approvals. The market acceptance of any product depends on a number of factors, including the indication statement and warnings approved by regulatory authorities on the product label, continued demonstration of efficacy and safety in commercial use, physicians' willingness to prescribe the product, reimbursement from third-party payers such as government health care systems and insurance companies, the price of the product, the nature of any post-approval risk management plans mandated by regulatory authorities, competition, and marketing and distribution support. Any factors preventing or limiting the market acceptance of our products could have a material adverse effect on our business, results of operations, and financial condition.

### We have not commercialized any products to date

We have yet to bring a product to market. Even if we obtain regulatory approval for a product, our future success will still depend on our ability to successfully commercialize our products, which depends on a number of factors beyond our control, including the willingness of physicians to prescribe our products to patients, payers' willingness and ability to pay for the drug, the level of pricing achieved, patients' response to our products, the ability of our marketing partners to generate sales and our ability to manufacture products on a cost-effective and efficient basis. If we are not successful in the commercialization of our products, our business, results of operations, and financial condition may be harmed.

# We rely on contract manufacturers over whom we have limited control. If we are subject to quality, cost, or delivery issues with the preclinical and clinical grade materials supplied by contract manufacturers, our business operations could suffer significant harm

We currently have no manufacturing experience and rely on Dalton and other contract manufacturing organizations ("CMOs") to manufacture our product candidates for preclinical studies and clinical trials and on Noramco to supply Dalton with cannabidiol at >99.5% purity and less than 10 ppm THC. We rely on CMOs for manufacturing, filling, packaging, storing, and shipping of drug products in compliance with current good manufacturing practice, or cGMP, regulations applicable to our products. The FDA ensures the quality of drug products by carefully monitoring drug manufacturers' compliance with cGMP regulations. The cGMP regulations for drugs contain minimum requirements for the methods, facilities, and controls used in manufacturing, processing, and packing of a drug product. If our CMOs increase their prices or fail to meet our quality standards, or those of regulatory agencies such as the FDA, and cannot be replaced by

other acceptable CMOs, our ability to obtain regulatory approval for and commercialize our product candidates may be materially adversely affected.

### Business disruptions affecting our third-party suppliers, manufacturers, and CROs could harm our future revenues and financial condition and increase our costs and expenses

We rely on third parties to supply the materials for, and manufacture our APIs for, our preclinical and clinical trials. There are only a limited number of suppliers and manufacturers of our APIs and our ability to obtain these materials could be disrupted if the operations of these manufacturers is affected by earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics, and other natural or man-made disasters or business interruptions. We also rely on CROs, clinical data management organizations, and consultants to design, conduct, supervise and monitor preclinical studies of our product candidates and will do the same for our planned clinical trials. If their facilities are unable to operate because of an accident or incident, even for a short period of time, some or all of our research and development programs may be harmed or delayed, and our operations and financial condition could suffer.

### Our existing collaboration agreements and any entered into in the future may not be successful which would have adverse consequences

We are a party to, and may seek additional, collaboration arrangements with pharmaceutical or biotechnology companies for the development or commercialization of our current and potential product candidates. We may enter into new arrangements on a selective basis depending on the merits of retaining commercialization rights for ourselves as compared to entering into selective collaboration arrangements with leading pharmaceutical or biotechnology companies for each product candidate, both in Canada and internationally. To the extent that we decide to enter into collaboration agreements, we will face significant competition in seeking appropriate collaborators. Moreover, collaboration arrangements are complex and time consuming to negotiate, document, and implement. We may not be successful in our efforts to establish, implement and maintain collaborations or other alternative arrangements if we choose to enter into such arrangements. The terms of any collaboration or other arrangements that we may establish may not be favorable to us.

Any existing or future collaboration that we enter into may not be successful. The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations.

Disagreements between parties to a collaboration arrangement regarding development, intellectual property, regulatory or commercialization matters, can lead to delays in the development process or commercialization of the applicable product candidate and, in some cases, termination of the collaboration arrangement. These disagreements can be difficult to resolve if neither of the parties has final decision making authority.

Collaborations with pharmaceutical or biotechnology companies and other third parties often are terminated or allowed to expire by the other party. Any such termination or expiration would adversely affect us financially and could harm our business reputation.

### Product shipment delays would have adverse effect on the business

The shipment, import, and export of our product candidates require import and export licenses. In the United States, the FDA, U.S. Customs and Border Protection, and the DEA, and in other countries, similar regulatory authorities regulate the import and export of pharmaceutical products that contain controlled substances, including our other product candidates. Specifically, the import and export process requires the issuance of import and export licenses by the relevant controlled substance authority in both the importing and exporting country. Once we are in the production phase, we may not be granted, or if granted, maintain, such licenses from the authorities in certain countries. Even if we obtain the relevant licenses,

shipments of our product candidates may be held up in transit, which could cause significant delays and may lead to product batches being stored outside required temperature ranges. Inappropriate storage may damage the product shipment resulting in a partial or total loss of revenue from one or more shipment of our other product candidates. A partial or total loss of revenue from one or more shipment of our product candidates could have a material adverse effect on our business, results of operations and financial condition.

### Our ability to generate product revenues will be diminished if our pharmaceutical cannabinoid drugs sell for inadequate prices or patients are unable to obtain adequate levels of reimbursement

Our ability to commercialize our pharmaceutical cannabinoid, alone or with collaborators, will depend in part on the extent to which reimbursement will be available from:

- government and health administration authorities;
- private health maintenance organizations and health insurers; and
- other healthcare payers.

Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Healthcare payers are challenging the prices charged for medical products and services. Government and other healthcare payers increasingly attempt to contain healthcare costs by limiting both coverage and the level of reimbursement for drugs. Even if our product candidates are approved by the FDA or Health Canada, insurance coverage may not be available, and reimbursement levels may be inadequate, to cover our pharmaceutical cannabinoid. If government and other healthcare payers do not provide adequate coverage and reimbursement levels for our pharmaceutical cannabinoid, once approved, market acceptance of such pharmaceutical cannabinoid could be reduced.

### We do not have a history of selling, marketing, or distributing products

We currently have limited marketing, sales and distribution capabilities. As we become reasonably more certain that we will be able to commercialize our current or future products, we anticipate allocating more resources to the marketing, sales, and distribution of our proposed products in North America. However, we cannot assure that we will be able to market, sell, and distribute our products successfully. Our future success also may depend, in part, on our ability to enter into and maintain collaborative relationships for such capabilities, the collaborator's strategic interest in the products under development, and such collaborator's ability to successfully market and sell any such products. Although we intend to pursue collaborative arrangements regarding the sale and marketing of our products, there can be no assurance that we will be able to establish or maintain our own sales operations or affect collaborative arrangements, or that if we are able to do so, our collaborators will have effective sales forces. There can also be no assurance that we will be able to establish or maintain relationships with third party collaborators or develop in-house sales and distribution capabilities. To the extent that we will in the future depend on third parties for marketing and distribution, any revenues we receive will depend upon the efforts of such third parties, and there can be no assurance that such efforts will be successful. In addition, there can also be no assurance that we will be able to market and sell our products in the United States or overseas.

### Competition

The Corporation expects to face intense competition from other companies in the sale of cannabidiol, some of which can be expected to have more financial resources and manufacturing and marketing experience than the Corporation. Increased competition by larger and better financed competitors could materially and adversely affect the business, financial condition and results of operations of the Corporation.

The sale of cannabinoid products is regulated under the Cannabis Act and various provincial regimes in Canada. With the opening of the cannabinoids market under the Cannabis Act, the Corporation expects to face additional competition from new entrants. If the number of users of medical cannabis in Canada increases, the demand for products will increase and the Corporation expects that competition will become more intense, as current and future competitors begin to offer an increasing number of diversified products.

To remain competitive, the Corporation will require a continued high level of investment in research and development, marketing, sales, and client support. The Corporation may not have sufficient resources to maintain research and development, marketing, sales and client support efforts on a competitive basis which could materially and adversely affect the business, financial condition, and operating results of the Corporation.

### Research and development and product obsolescence

Rapidly changing markets, technology, emerging industry standards and frequent introduction of new products characterize the Corporation's business. The introduction of new products embodying new technologies, including new manufacturing processes, and the emergence of new industry standards may render the Corporation's products obsolete, less competitive or less marketable. The process of developing the Corporation's products is complex and requires significant continuing costs, development efforts, and third-party commitments. The Corporation's failure to develop new technologies and products and the obsolescence of existing technologies could adversely affect the business, financial condition, and operating results of the Corporation. The Corporation may be unable to anticipate changes in its potential customer requirements that could make the Corporation's existing technology obsolete. The Corporation's success will depend, in part, on its ability to continue to enhance its existing technologies, develop new technology that addresses the increasing sophistication and varied needs of the market, and respond to technological advances and emerging industry standards and practices on a timely and cost-effective basis. The development of the Corporation's proprietary technology entails significant technical and business risks. The Corporation may not be successful in using its new technologies or exploiting its niche markets effectively or adapting its businesses to evolving customer or medical requirements or preferences or emerging industry standards.

### We may be subject to unfavourable publicity or consumer perception

The Corporation believes the cannabinoid industry is highly dependent upon consumer perception regarding the safety, efficacy, and quality of the cannabinoid produced. Consumer perception of the Corporation's pharmaceutical cannabinoid products can be significantly influenced by scientific research or findings, regulatory investigations, litigation, media attention, and other publicity regarding the consumption of cannabinoids. There can be no assurance that future scientific research, findings, regulatory proceedings, litigation, media attention or other research findings or publicity will be favourable to the cannabinoid market or any particular product, or consistent with earlier publicity. Future research reports, findings, regulatory proceedings, litigation, media attention, or other publicity that are perceived as less favourable than, or that question, earlier research reports, findings or publicity could have a material adverse effect on the demand for the Corporation's pharmaceutical cannabinoids and the business, results of operations, financial condition, and cash flows of the Corporation. The Corporation's dependence upon consumer perceptions means that adverse scientific research reports, findings, regulatory proceedings, litigation, media attention or other publicity, whether or not accurate or with merit, could have a material adverse effect on the Corporation, the demand for the Corporation's pharmaceutical cannabinoids, and the business, results of operations, financial condition, and cash flows of the Corporation. Further, adverse publicity reports or other media attention regarding the safety, efficacy, and quality of cannabinoid in general, or the Corporation's pharmaceutical cannabinoids specifically, or associating the consumption of cannabinoid with illness or other negative effects or events, could have such a material adverse effect. Such adverse publicity reports or other media attention could arise even if the adverse effects associated with such products resulted from consumers' failure to consume such products legally, appropriately or as directed.

### Product liability once the Corporation begins the production phase

As a possible manufacturer and distributor of products designed to be ingested by humans, once we are in the production phase, the Corporation faces an inherent risk of exposure to product liability claims, regulatory action and litigation if its products are alleged to have caused significant loss or injury. In addition, the manufacture and sale of cannabis products involve the risk of injury to consumers due to tampering by unauthorized third parties or product contamination. Previously unknown adverse reactions resulting from

human consumption of cannabis products alone or in combination with other medications or substances could occur. The Corporation may be subject to various product liability claims, including, among others, that the products produced by the Corporation caused injury or illness, include inadequate instructions for use or include inadequate warnings concerning possible side effects or interactions with other substances. A product liability claim or regulatory action against the Corporation could result in increased costs, could adversely affect the Corporation's reputation with its clients and consumers generally, and could have a material adverse effect on the business, financial condition and operating results of the Corporation. There can be no assurances that the Corporation will be able to obtain or maintain product liability insurance on acceptable terms or with adequate coverage against potential liabilities. Such insurance is expensive and may not be available in the future on acceptable terms, or at all. The inability to obtain sufficient insurance coverage on reasonable terms or to otherwise protect against potential product liability claims could prevent or inhibit the commercialization of products.

### Manufacturers and distributors can be subject to product recalls

Manufacturers and distributors of products are sometimes subject to the recall or return of their products for a variety of reasons, including product defects, such as contamination, unintended harmful side effects or interactions with other substances, packaging safety and inadequate or inaccurate labeling disclosure. If any of the products that the Corporation intends to produce are recalled due to an alleged product defect or for any other reason, the Corporation could be required to incur the unexpected expense of the recall and any legal proceedings that might arise in connection with the recall. The Corporation may lose a significant amount of sales and may not be able to replace those sales at an acceptable margin or at all. In addition, a product recall may require significant Management attention. Although the Corporation has detailed procedures in place for testing finished products, there can be no assurance that any quality, potency, or contamination problems will be detected in time to avoid unforeseen product recalls, regulatory action, or lawsuits. Additionally, if one of the products produced by the Corporation were subject to recall, the image of that product and the Corporation could be harmed. A recall for any of the foregoing reasons could lead to decreased demand for products produced by the Corporation and could have a material adverse effect on the results of operations and financial condition of the Corporation. Additionally, product recalls may lead to increased scrutiny of the operations of the Corporation by Health Canada or other regulatory agencies, requiring further Management attention and potential legal fees and other expenses.

### The presence or absence of one or more large new orders in a specific quarter, ability to process orders, or order cancellation could cause results of operations to fluctuate on a quarterly basis

Once we are in the production phase, we will supply products to our commercial partners in response to their purchase order schedules. The size of each purchase order may fluctuate. As a result, the presence or absence in a specific quarter of one or more new large orders or delays in our ability to process large orders or the cancellation of previous orders may cause our results of operations to fluctuate on a quarterly basis. These fluctuations may be significant from one quarter to the next. Any demands that require us to quickly increase production may create difficulties for us. In addition, our lack of commercial history and the characteristic of our orders in any quarterly period make it very difficult to accurately predict or forecast our future operating results.

### The Corporation may seek to expand its business and operations into jurisdictions outside of Canada, and there are risks associated with doing so

The Corporation may in the future expand its operations and business into jurisdictions outside of Canada. There can be no assurance that any market for the Corporation's products will develop in any such foreign jurisdiction. The Corporation may face new or unexpected risks or significantly increase its exposure to one or more existing risk factors, including economic instability, changes in laws and regulations and the effects of competition. These factors may limit the Corporation's capability to successfully expand its operations and may have a material adverse effect on the Corporation's business, financial condition and results of operations.

### The Corporation may become subject to liability arising from any fraudulent or illegal activity by its employees, contractors, and consultants

The Corporation is exposed to the risk that its employees, independent contractors, and consultants may engage in fraudulent or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to the Corporation that violates: (i) government regulations; (ii) manufacturing standards; (iii) federal and provincial healthcare fraud and abuse laws and regulations; or (iv) laws that require the true, complete, and accurate reporting of financial information or data. It is not always possible for the Corporation to identify and deter misconduct by its employees and other third parties, and the precautions taken by the Corporation to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting the Corporation from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against the Corporation, and it is not successful in defending itself or asserting its rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of the Corporation's operations, any of which could have a material adverse effect on the Corporation's business, financial condition and results of operations.

### Corporation's business is dependent on key inputs

The Corporation's business is dependent on a number of key inputs and their related costs including raw materials and supplies related to its growing operations, as well as electricity, water and other local utilities. Any significant interruption or negative change in the availability or economics of the supply chain for key inputs could materially impact the business, financial condition, and operating results of the Corporation. Any inability to secure required supplies and services or to do so on appropriate terms could have a materially adverse impact on the business, financial condition, and operating results of the Corporation.

### Operating risk and insurance coverage

The Corporation has insurance to protect its assets, operations, and employees. While the Corporation believes its insurance coverage addresses all material risks to which it is exposed and is adequate and customary in its current state of operations, such insurance is subject to coverage limits and exclusions and may not be available for the risks and hazards to which the Corporation is exposed. In addition, no assurance can be given that such insurance will be adequate to cover the Corporation's liabilities or will be generally available in the future or, if available, that premiums will be commercially justifiable. If the Corporation were to incur substantial liability and such damages were not covered by insurance or were in excess of policy limits, or if the Corporation were to incur such liability at a time when it is not able to obtain liability insurance, its business, results of operations, and financial condition could be materially adversely affected.

### Management of growth

The Corporation may be subject to growth-related risks, including capacity constraints and pressure on its internal systems and controls. The ability of the Corporation to manage growth effectively will require it to continue to implement and improve its operational and financial systems and to expand, train, and manage its employee base. The inability of the Corporation to deal with this growth may have a material adverse effect on the Corporation's business, financial condition, results of operations, and prospects.

### **Conflicts of interest**

The Corporation may be subject to various potential conflicts of interest because of the fact that some of its officers and directors may be engaged in a range of business activities. In addition, the Corporation's executive officers and Directors may devote time to their outside business interests, so long as such activities do not materially or adversely interfere with their duties to the Corporation. In some cases, the Corporation's executive officers and Directors may have fiduciary obligations associated with these

business interests that interfere with their ability to devote time to the Corporation's business and affairs and that could adversely affect the Corporation's operations. These business interests could require significant time and attention of the Corporation's executive officers and Directors. In addition, the Corporation's executive officers and Directors control a large percentage of common shares and may have ability to control matters effecting the Corporation.

The Corporation may also become involved in other transactions which conflict with the interests of its Directors and the officers who may from time to time deal with persons, firms, institutions, or Companies with which the Corporation may be dealing, or which may be seeking investments similar to those desired by it. The interests of these persons could conflict with those of the Corporation. In addition, from time to time, these persons may be competing with the Corporation for available investment opportunities. Conflicts of interest, if any, will be subject to the procedures and remedies provided under applicable laws. In particular, in the event that such a conflict of interest arises at a meeting of the Corporation's Directors, a director who has such a conflict will abstain from voting for or against the approval of such participation or such terms. In accordance with applicable laws, the Directors of the Corporation are required to act honestly, in good faith, and in the best interests of the Corporation.

### In certain circumstances, the Corporation's reputation could be damaged

Damage to the Corporation's reputation could be the result of the actual or perceived occurrence of any number of events, and could include any negative publicity, whether true or not. The increased usage of social media and other web-based tools used to generate, publish, and discuss user-generated content and to connect with other users has made it increasingly easier for individuals and groups to communicate and share opinions and views in respect to the Corporation and its activities, whether true or not. Although the Corporation believes that it operates in a manner that is respectful to all stakeholders and that it takes care in protecting its image and reputation, the Corporation does not ultimately have direct control over how it is perceived by others. Reputation loss may result in decreased investor confidence, increased challenges in developing and maintaining community relations and an impediment to the Corporation's overall ability to advance its projects, thereby having a material adverse impact on financial performance, financial condition, cash flows, and growth prospects.

### Third party reputational risk

The parties with which the Corporation does business may perceive that they are exposed to reputational risk as a result of the Corporation's medical cannabis business activities. This may impact the Corporation's ability to retain current partners, such as its banking relationship, or source future partners as required for growth or future expansion in Canada or the United States. Failure to establish or maintain business relationships could have a material adverse effect on the Corporation.

Our relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm, and diminished profits and future earnings

Healthcare providers, physicians and third-party payors play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our products for which we obtain marketing approval. As a pharmaceutical company, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude

that our business practices may not comply with current or future statutes, regulations, or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal, and administrative penalties, damages, fines, imprisonment, exclusion from government funded healthcare programs, and the curtailment or restructuring of our operations. If any physicians or other healthcare providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil, or administrative sanctions, including exclusions from government funded healthcare programs.

Also, Corruption of Foreign Public Officials Act (Canada) and similar worldwide anti-bribery laws generally prohibit companies and their intermediaries from making improper payments to non-Canadian officials for the purpose of obtaining or retaining business. Our internal control policies and procedures may not protect us from reckless or negligent acts committed by our employees, future distributors, licensees, or agents. Violations of these laws, or allegations of such violations, could result in fines, penalties, or prosecution and have a negative impact on our business, results of operations, and reputation.

### Information systems security threats

The Corporation has entered into agreements with third parties for hardware, software, telecommunications, and other information technology ("IT") services in connection with its operations. The Corporation's operations depend, in part, on how well it and its suppliers protect networks, equipment, IT systems, and software against damage from a number of threats, including, but not limited to, cable cuts, damage to physical plants, natural disasters, terrorism, fire, power loss, hacking, computer viruses, vandalism, and theft. The Corporation's operations also depend on the timely maintenance, upgrade and replacement of networks, equipment, IT systems and software, as well as pre-emptive expenses to mitigate the risks of failures. Any of these and other events could result in information system failures, delays and/or increase in capital expenses. The failure of information systems or a component of information systems could, depending on the nature of any such failure, adversely impact the Corporation's reputation and results of operations.

The Corporation has not experienced any material losses to date relating to cyber-attacks or other information security breaches, but there can be no assurance that the Corporation will not incur such losses in the future. The Corporation's risk and exposure to these matters cannot be fully mitigated because of, among other things, the evolving nature of these threats. As a result, cyber security and the continued development and enhancement of controls, processes and practices designed to protect systems, computers, software, data and networks from attack, damage or unauthorized access is a priority. As cyber threats continue to evolve, the Corporation may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any security vulnerabilities.

#### No dividends

Our current policy is to retain earnings to finance the development and enhancement of our products and to otherwise reinvest in the Corporation. Therefore, we do not anticipate paying cash dividends on the common shares in the foreseeable future. Our dividend policy will be reviewed from time to time by our Board of Directors in the context of our earnings, financial condition, and other relevant factors. Until the time that we do pay dividends, which we might never do, our shareholders will not be able to receive a return on their common shares unless they sell them.

### Future sales of common shares by existing shareholders

Sales of a substantial number of common shares in the public market could occur at any time before or after the expiration of the lock-up agreements. These sales, or the market perception that the holders of a large number of common shares intend to sell common shares, could reduce the market price of our common shares. Holders of options to purchase common shares will have an immediate income inclusion for tax purposes when they exercise their options (that is, tax is not deferred until they sell the underlying common shares). As a result, these holders may need to sell common shares purchased on the exercise

of options in the same year that they exercise their options. This might result in a greater number of common shares being sold in the public market, and fewer long-term holds of common shares by Management and our employees.

### Cardiol may be subject to securities litigation which is expensive and could divert Management's attention

The market price of the common shares may be volatile, and in the past companies that have experienced volatility in the market price of their shares have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our Management's attention from other business concerns, which could seriously harm our business.

### Dilution and future sales of common shares

We may issue additional common shares in the future, which may dilute a Shareholder's holding in the Corporation. Our articles will permit the issuance of an unlimited number of common shares, and Shareholders will have no pre-emptive rights in connection with such further issuances. The Directors of the Corporation have the discretion to determine if an issuance of common shares is warranted, the price at which such issuance is effected and the other terms of issue of common shares. Also, we may issue additional common shares upon the exercise of options to acquire common shares under the Option Plan, which will result in further dilution to the Shareholders. Potential future acquisitions may also divert Management's attention and result in further dilution to the Shareholders.