

Management Discussion and Analysis of the Financial Condition and Results of Operations

Fiscal 2018 – First Quarter for the three month period ended July 31, 2017

## **Table of Contents**

Overview	1
Forward-looking Statements	1
The Company	3
Description of Business	3
Operational Progress and Outlook	5
Analysis of Financial Results First Quarter Fiscal 2018	5
Financial Results Two Year Quarterly Summary	10
Liquidity and Cash Resources	11
Off-Balance Sheet Arrangements	15
Foreign Exchange Exposure	15
Related Party Transactions	16
Outstanding Share Information	17
Industry and Economic Risk Factors Affecting Performance	17
Use of Non-GAAP Financial Measures	20
Changes in Accounting Policies	21



#### Overview

The following Management Discussion and Analysis ("MD&A") is a review of the financial condition and results of operations of Critical Outcome Technologies Inc. ("COTI" or the "Company") for the three months ended July 31, 2017 and has been prepared with all information available up to September 29, 2017. The MD&A is intended to assist readers in understanding the dynamics of the Company's business and the key factors underlying its financial results. The Audit Committee of the Company approved the content of this MD&A on September 29, 2017.

This analysis should be read in conjunction with the unaudited condensed interim financial statements (the "Interim Financial Statements") and notes thereto for the quarter ended July 31, 2017. These Interim Financial Statements were prepared in accordance with International Financial Reporting Standards ("IFRS") and in particular with International Accounting Standard 34: Interim Financial Reporting.

All dollar amounts in this MD&A are expressed in Canadian dollars ("CAD") unless otherwise noted.

The Company's Annual Financial Statements for the year ended April 30, 2017, and additional supplementary historic information concerning the Company can be found on SEDAR at www.sedar.com or on the Company's website at www.criticaloutcome.com.

## **Forward-looking Statements**

This MD&A contains certain statements based upon forward-looking information ("forward-looking statements" or "FLS") concerning the Company's plans for its operations and other matters within the meaning of applicable Canadian provincial securities laws. FLS are necessarily based on estimates and assumptions that are inherently subject to significant business, economic, and competitive uncertainties and contingencies. All statements that address activities, events, or developments that the Company believes, expects, or anticipates will or may occur in the future are FLS. FLS are subject to a variety of risks and uncertainties that may cause actual events or results to differ materially from those discussed in the FLS, and even if such actual events or results are realized or substantially realized, there can be no assurance they will have the expected consequences to, or effects on, the Company.

Any statements that express or involve discussion with respect to predictions, expectations, beliefs, plans, projections, objectives, or assumptions of future events or performance (often, but not always, using words or phrases such as "expects" or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "estimates" or "intends", or stating that certain actions, events, or results "may", "could", "would", "might", or "will" be taken, occur or be achieved) are not statements of historical fact and may be FLS. The major FLS included in this MD&A are set out in Table 1.

The basis for the FLS is management's current expectations, estimates, projections, and assumptions. By their nature, they are not guarantees of future performance as they involve significant risks and uncertainties. The main assumptions used by management to develop the forward-looking information include the following:



- An ability to obtain sufficient financing to support working capital requirements and fund further research and development initiatives;
- Positive outcomes from the Company's Phase 1 clinical trial with COTI-2 (the "Trial"), the Company's lead oncology drug candidate, in gynecological cancers that completed the in-patient portion of the Trial in August 2017;
- An ability to further enhance and add features to the CHEMSAS® technology or incorporate advances in artificial intelligence technologies for internal and collaborative purposes;
- An ability to obtain patent protection for the Company's compounds and other intellectual property;
- An ability to attract and retain skilled and experienced personnel and to support research and development; and,
- An ability to establish preferred supplier relationships with reputable and reliable third party clinical research organizations.

Table 1: Forward-looking Statements

MD&A Section Heading	Nature of Forward-looking Information Disclosed
Description of Business	<ul> <li>The Company has further plans to expand the Trial into other p53-mediated cancers.</li> <li>COTI-219 is currently undergoing testing in support of an IND filing in fiscal 2018.</li> </ul>
Operational Progress and Outlook	• Preliminary safety and tolerability results were reported with secondary and exploratory endpoint data expected by the end of calendar 2017.
Financing	This is the first of two expected tranches.
Liquidity and Cash Resources	• The Company is working towards closing a second tranche of this financing in early October 2017.
	<ul> <li>Investment in such items will continue as the Company builds upon and protects its CHEMSAS® process, ROSALIND™ technology and molecules in development.</li> </ul>
	The Company currently expects the Trial to conclude in fiscal 2019.
Foreign Exchange Exposure	<ul> <li>Expectation of exposure to currency fluctuations resulting from clinical trial costs being undertaken with U.Sbased investigators and institutions.</li> </ul>
Industry and Economic Risk Factors Affecting Performance	<ul> <li>COTI's long-term potential may be realized through the successful development and commercialization of molecules discovered using the Company's drug discovery technology, CHEMSAS<sup>®</sup>.</li> <li>The Company has discretion with many of its expenditure activities and</li> </ul>
	will responsibly manage these activities in fiscal 2018 within its available cash resources.
	COTI continues to develop relationships with prospective customers and to selectively seek strategic licensing and collaboration opportunities.
	• The Company will continue to seek strategic sources of financing to fund its operations in the interim.



MD&A Section Heading	Nature of Forward-looking Information Disclosed
Changes in Accounting Policie	• The Company does not expect the amendments to have a material impact on the financial statements.

Management cautions the reader that there are many risk factors, including those specifically discussed later in the MD&A, which are of particular importance and actual results could differ materially from those expressed or implied in the FLS. As such, undue reliance should not be placed on any individual FLS.

The forward-looking information is provided as of the date of this MD&A and the Company does not undertake any obligation to publicly update or revise any forward-looking information, whether because of new information, future events, or otherwise, except as required by securities laws.

## The Company

COTI is a clinical stage biotech company with offices in London, Ontario and Boston, Massachusetts. The Company was formed from an amalgamation on October 13, 2006, of Aviator Petroleum Corp., a public company listed on the TSX Venture Exchange ("TSXV"), and Critical Outcome Technologies Inc., a private company under the provisions of the *Business Corporations Act* (Ontario). The amalgamated company adopted the name Critical Outcome Technologies Inc. and its common shares were listed for trading on the TSXV under the symbol COT on October 30, 2006.

On November 27, 2007, the Company acquired all the outstanding common shares in 3015402 Ontario Inc. operating as DDP Therapeutics ("DDP"). DDP was formed in early 2005 to develop a library of molecules originally identified by the Company using its drug discovery technology. On May 1, 2008, the Company amalgamated with this wholly owned subsidiary under the laws of the Province of Ontario.

On June 16, 2014, the Company obtained a listing in the United States on the OTC Markets OTCQB trading platform for venture companies under the symbol COTQF.

The Company announced on June 23, 2017, that in accordance with the approval of the Company's shareholders obtained on October 13, 2016, the Board of Directors resolved to proceed with a consolidation of the Company's issued and outstanding common shares based upon a ratio of ten preconsolidation common shares for one post-consolidation common share. The Company's common shares commenced trading on a consolidated basis on June 30, 2017.

### **Description of Business**

COTI is a clinical stage biopharmaceutical company advancing a pipeline of targeted therapies for the treatment of cancer and other unmet medical needs. COTI uses a proprietary drug discovery technology, CHEMSAS®, to accelerate the discovery and development of novel drug therapies, allowing it to build a pipeline of potential drug candidates faster and with a higher probability of success than traditional methods.



COTI has a second, complementary technology platform, ROSALIND™, designed to correlate the genetic profile of a patient's tumor with available potential drug/drug combinations. This technology is a smart data platform designed to realize the promise of personalized medicine, assisting, oncologists in prescribing an optimized therapy for individuals.

### a) Pipeline

### COTI-2

The Company's lead clinical candidate, COTI-2, is an oral small molecule targeting p53, a tumor suppressor gene that is mutated in over 50% of all cancers. Extensive preclinical studies demonstrated COTI-2's ability to restore mutant p53 function and induce cancer cell death in a tumor-agnostic manner, with specific and non-toxic properties. The initial therapeutic indication for COTI-2 is gynecologic cancers, which includes ovarian, cervical, and endometrial cancers, and where the incidence rate is up to 95% in ovarian cancer. COTI-2 holds a FDA issued orphan drug designation for ovarian cancer. A Phase 1 clinical trial with COTI-2 in gynecological cancers (the "Trial") completed the in-patient portion in August 2017. This trial was conducted at the University of Texas, MD Anderson Cancer Center ("MDACC") in Houston, and the Lurie Cancer Center at Northwestern University ("NWU") in Chicago. The second part of this trial has been initiated at MDACC in patients with head and neck squamous cell carcinoma ("HNSCC"). The Company has further plans to expand the Trial into other p53-mediated cancers.

### **COTI-219**

The Company declared its second clinical candidate, COTI-219, in October 2016. COTI-219 is a novel oral small molecule compound targeting the mutant forms of KRAS. KRAS gene mutations occur in up to 30% of all cancers, particularly lung, colorectal, pancreatic, and thyroid. COTI-219 targets the mutant forms of KRAS without inhibiting normal KRAS function, representing a tremendous unmet clinical need and a very desirable drug target. COTI-219 is currently undergoing testing in support of an investigational new drug ("IND") filing in fiscal 2018.

### b) Technology Platforms

- The Company will continue to maintain and test its CHEMSAS® platform to support discovery
  and development of novel drug therapies and evaluate the Company's library of small
  molecules. This includes identifying new biological and chemical assay datasets for possible
  incorporation and ensuring compatibility with operating system and third party software
  updates.
- The Company continued to test its ROSALIND™ platform during the quarter, advancing a validation study to build a 100-patient database reflecting the evaluation of outcomes from the ROSALIND™ analysis and its report recommendations. Experimental ROSALIND™ assessments to suggest potential tumor sensitivities continue to be requested by cancer patients and their



physicians internationally. Validation testing of ROSALIND<sup>TM</sup> will continue subject to securing sufficient funding to permit ongoing investment in this platform in fiscal 2018.

## **Operational Progress and Outlook**

### a) Operations

The Company's focus in the first quarter of fiscal 2018 continued to be on the progression of its Phase 1 clinical trial for the investigation of COTI-2 as a treatment in patients with recurrent ovarian, fallopian tube, endometrial, or cervical cancer.

The Company announced subsequent to the first quarter, on August 14, 2017, that it had completed the patient dosing portion of the dose escalation trial in gynecological malignancies. Preliminary safety and tolerability results were reported with secondary and exploratory endpoint data expected by the calendar end of 2017. The Company also reported subsequent to the first quarter that it had initiated the HNSCC second part of the trial. Advancement into that indication will be reported as available.

During the first quarter, COTI continued its strategic focus to expand the indications for COTI-2. Along with its identified next indication of HNSCC, other potential indications include: Li-Fraumeni Syndrome ("LFS"); a p53 basket trial inclusive of several tumor types; and combination studies with currently approved oncology therapies.

The Company continued to advance its second clinical candidate, COTI-219, through IND-enabling studies in the first quarter of fiscal 2018. The primary focus this quarter was the initiation of the GMP manufacturing campaign, which was secured and contracted in Q4 2017. Studies to further understand the mechanism of action of COTI-219 are ongoing.

### b) Financing

Subsequent to the quarter end, the Company announced on September 20, 2017 that it secured \$1.5 million CAD in funds from a private placement. This is the first of two expected tranches. Proceeds will be used to support the ongoing development of COTI-2 as the Company advances the HNSCC second part of the Trial. Details are highlighted in "Liquidity and Cash Resources" where we also note the Company will seek additional financing to fund operations in fiscal 2018. The Company will also explore government funding, co-development project funding from interested partners, and strategic partnership agreements for COTI-2 or one of its other assets. Any delays in the progression of the Trial will influence the timing of cash outflows and affect the timing of additional financing requirements.

## **Analysis of Financial Results First Quarter Fiscal 2018**

Summary financial information for the comparative first quarter periods ended July 31, 2017 and 2016 (Q1-F'18 and Q1-F'17) is set out in Table 2. The Company recorded a loss of \$0.02 per share for the first quarter compared to a loss of \$0.16 per share in the prior year. This improvement was primarily related to a change in the fair value of the warrant liability resulting from remeasurement at the reporting date as a large non-cash gain was recorded in Q1-F'18 compared to a large expense occurring in the prior



year. These significant swings resulted from changes in the valuation model assumptions at the reporting dates compared to values at the recently completed prior fiscal year ends.

### Revenue

There was no revenue generated in Q1-F'18 or in the comparative period.

Table 2 – Summary Financial Information – First Quarter Comparatives

Research and product development Sales and marketing General and administration Investment tax credits  ss before finance income (expense) nance income (expense):	Q1-F'18	Q1-F'17	Change
Expenses (income):			
Research and product development	\$ 667,175 \$	614,205 \$	(52,970)
Sales and marketing	85,681	103,602	17,921
General and administration	781,123	653,697	(127,426)
Investment tax credits	(17,999)	(40,558)	(22,559)
	1,515,980	1,330,946	(185,033)
Loss before finance income (expense)	(1,515,980)	(1,330,946)	(185,033)
Finance income (expense):			
Interest income, net	1,195	12,133	(10,938)
Change in fair value of warrant liability	1,277,452	(1,052,470)	2,329,922
Foreign exchange (loss) gain	(4,672)	56,220	(60,892)
	1,273,975	(984,117)	2,258,092
Loss and comprehensive loss	\$ (242,004) \$	(2,315,063) \$	2,073,060
Weighted average shares outstanding	14,915,844	14,690,779	
Loss per common share	\$ (0.02) \$	(0.16)	

### **Expenses**

As highlighted in Table 2, operating expenses increased from \$1,330,946 for Q1-F'17 to \$1,515,980 for Q1-F'18, an increase of \$185,033. This was primarily due to an increase in General and administration ("G&A") expense, an increase in Research and product development ("R&D") expense and a decrease in investment tax credits earned. These increases were partially offset by a decrease in Sales and marketing ("S&M") expense.

### a) R&D Expense

Table 3 shows R&D expense by major expense type for the comparable quarterly periods ended July 31. The increase of \$52,970 in R&D expense quarter over quarter was attributable to an increase in salaries and benefits, and *in vivo/in vitro* testing offset primarily by a decrease in direct Clinical trial expenses.

The increase in Salaries and benefits between the quarterly periods primarily reflects a higher head count in Q1-FYE'18, and market-based salary increases to R&D personnel between the comparable periods.



Table 3: R&D Expense – First Quarter Comparison

	Q1-FYE'18	Q1-FYE'17	Change
Clinical trial expenses	\$ 167,829 \$	226,087 \$	58,258
In vivo/in vitro testing	109,784	72,894	(36,890)
Synthesis and miscellaneous R&D expenses	70,525	78,311	7,786
	348,138	377,292	29,154
Salaries and benefits	241,547	169,351	(72,196)
Other	34,827	35,648	821
Professional fees	3,279	6,371	3,092
Drug Development Consulting	13,491	9,181	(4,310)
	641,282	597,843	(43,439)
Share-based compensation	25,893	16,362	(9,531)
Total	\$ 667,175 \$	614,205 \$	(52,970)

The increase in *In vivo/in vitro* testing expenditures, quarter over quarter, is due primarily to further non-clinical testing of COTI-2 and COTI-219. These studies are targeted at deepening the understanding of the MOA and investigating new indications for both compounds; and conducting IND-enabling studies to support regulatory filings of COTI-219.

Clinical trial expenses decreased in the quarter compared to Q1-F'17 primarily due to the lower level of patient activity between the quarters and the additional upfront costs associated with initiating a second trial site at Northwestern that commenced in June 2016.

#### b) G&A Expense

G&A expense increased \$127,426 year over year with all expense categories increasing. Table 4 provides a breakdown of G&A expense by major expense type for the comparable three month fiscal periods ended July 31.

The most significant increases year over year occurred in Salaries and benefits, Share-based compensation, and rent, with some offset from lower expenses in professional fees and corporate governance.

The increase in Salaries and benefits between the quarterly periods primarily reflects a higher head count in Q1-F'18, and market-based salary increases to G&A personnel between the comparable periods.



Table 4: G&A Expense – First Quarter Comparison

	Q1-FYE'18	Q1-FYE'17	Change
Salaries and benefits	\$ 270,785	207,121	\$ (63,664)
Professional fees	118,079	157,616	39,537
Amortization	56,757	56,473	(284)
Marketing and travel	44,995	38,685	(6,310)
Other	19,142	13,753	(5,389)
Corporate governance	13,777	54,155	40,378
Rent	33,974	10,200	(23,774)
Insurance	20,838	15,886	(4,952)
	578,347	553,889	(24,458)
Share-based compensation	202,776	99,808	(102,968)
Total	\$ 781,123	653,697	\$ (127,426)

Higher Share-based compensation expense year over year primarily reflects the use of share option grants as an important component of compensation packages with the recent staffing additions.

The increase in Rent expense in the quarterly comparison reflects the expansion into the United States with the opening of the Boston office in August 2016.

The decrease in Corporate governance expense in the year to date comparisons relates to lower costs, primarily legal fees, in preparation for the Annual General Meeting, which is scheduled for December 2017 compared to October in 2016.

### c) S&M Expense

Table 5 provides a breakdown of S&M expense by major expense types for the comparable three month fiscal periods ended July 31.

Table 5: S&M Expense – First Quarter Comparison

	Q1-FYE'18	Q1-FYE'17	Change
Professional fees	\$ 84,563 \$	64,143 \$	(20,420)
Marketing and travel	1,118	31,702	30,584
Salaries and benefits	-	7,547	7,547
Other	-	210	210
Total	\$ 85,681 \$	103,602 \$	17,921

The increase in Professional fees for the quarterly comparison relates to an increase in investor relations consulting.

The Marketing and travel expense decrease year to date reflects a reduction in the number of Company representatives at business development conferences as well as a shift in the conferences being attended during Q1-F'18 compared to Q1-F'17 as well as a change in the allocation of such expenses between G&A and S&M related to the President & CEO.



### d) Investment Tax Credits ("ITC")

The ITC income decrease of \$22,559 in Q1-F'18 compared to Q1-F'17 relates to lower R&D expenditures qualifying for refundable ITC compared to the prior period both in eligible internal labour costs and third party testing.

### e) Interest and Financing

The decrease in interest income in Q1-F'18 compared to the prior year period relates to the substantially lower cash, cash equivalent, and investment balances held by the Company during the comparable periods.

### f) Change in Fair Value of Warrant Liability

Under IFRS, the warrant liability must be revalued at each reporting period. For Q1-F'18 this resulted in a significant decrease in this non-cash expense compared to Q1-F'17. The change in key assumptions for the Q1-F'18 period compared to Q4-F'17 were substantial as shown in Table 6 below. Those factors having the greatest impact included an increase in volatility, a decline in the USD-CAD exchange rate and the decline in the Company's share price.

Table 6: Key Assumptions of Warrant Liability Remeasurement

	Key Assumption	July 31, 2017	April 30, 2017
1	Estimated volatility	80.85 - 82.37%	71.53 - 72.11%
2	USD-CAD foreign exchange rate	1.2478	1.3654
3	Estimated life in years	2.19 - 2.28	2.46 - 2.57
4	Market price in CAD	\$1.15	\$3.80
5	Exercise price in USD	\$3.40	\$3.40

### g) Foreign Exchange Gain

The Company incurred a small foreign exchange loss as a result of the strengthening of the Canadian dollar since the April 30, 2017 year end as noted in Table 6. When compared against Q1-F'17 the swing from a gain to a loss on foreign exchange relates to the much larger USD balances being carried in that quarter (Q1-F'18 \$86,551; Q1-F'17 \$1,380,978) and fluctuations in the CAD/USD exchange rates in Q1-F'17 (July 31, 2016 - 1.3056 and April 30, 2016 - 1.2548).



### **Financial Results Two Year Quarterly Summary**

Table 7 summarizes the financial results of the Company by quarter for the past two fiscal years.

Table 7: Summary of Quarterly Financial Results (1)

					-
FYE 2018	Q1	Q2	Q3	Q4	Full Year
	31-Jul	31-Oct	31-Jan	30-Apr	
Revenue \$	-	\$ -	\$ -	\$ -	\$ -
Loss	(242,004)	-	-	-	(242,004)
Loss per common share (1) \$	(0.02)	\$ -	\$ -	\$ -	\$ (0.02)
FYE 2017	Q1	Q2	Q3	Q4	Full Year
	31-Jul	31-Oct	31-Jan	30-Apr	
Revenue \$	-	\$ -	\$ -	\$ -	\$ -
Loss	(2,315,063)	(748,286)	(1,238,427)	(1,907,114)	(6,208,890)
Loss per common share (1) \$	(0.16)	\$ (0.05)	\$ (0.08)	\$ (0.13)	\$ (0.42)
FYE 2016	Q1	Q2	Q3	Q4	Full Year
	31-Jul	31-Oct	31-Jan	30-Apr	
Revenue \$	-	\$ -	\$ -	\$ -	\$ -
Loss	(985,120)	(938,860)	(637,176)	(2,363,271)	(4,924,427)
Loss per common share (1) \$	(0.09)	\$ (0.07)	\$ (0.05)	\$ (0.18)	\$ (0.39)

<sup>(1)</sup> The Loss per common share as presented is for both basic and diluted earnings per share and has been adjusted to reflect the common share consolidation that was effective June 30, 2017.

Two functional expense categories, General and administration and Research and product development, as set out in Table 8 explain the majority of the variation in the Company's operational expenses by quarter across the two years and quarterly year over year.

G&A expense was relatively stable during fiscal 2016 with some variability around the quarterly average expense of approximately \$410k and then increased during FYE 2017 primarily related to leadership succession and other additions to the management team.

R&D expense increased gradually starting in the first quarter of FYE 2016 following the FDA approval to commence the COTI-2 Trial as costs for the planning of the Trial with the trial site and site investigator proceeded into the fourth quarter of fiscal 2016 when patient dosing commenced. This rising expense trend continued into FYE 2017 and leveled off in the last few quarters with the escalation phase of the Trial progressing at a consistent pace.

A significant increase occurred in Share-based compensation during FYE 2017. This primarily reflected the use of milestone and retention based stock option awards in compensation plans related to the addition of senior personnel.



On a total expense basis, these three categories have been consistently in the 95-97% range as a percentage of total expense since Q1-FYE'17.

In addition to these categories, the non-cash expense item, Change in fair value of warrant liabilities, which appears in the Finance income (expense) section of the Financial Statements, is a primary factor in the significant swings in the loss reported over the two years. In Q1-F'18, the change in fair value resulted in the recognition of a non-cash gain of \$1,277,452 which is the major factor in the decreased loss reported in this quarter (see section (f) of the "Analysis of Financial Results First Quarter Fiscal 2018" for more information.

Table 8: Selected Quarterly Expense Categories (1)

FYE 2018		Q1	Q2	Q3	Q4		Year
		31-Jul	31-Oct	31-Jan	30-Apr		to Date
General and administration	\$	578,347				\$	578,347
Research and product development		641,282					641,282
Share-based compensation		228,669					228,669
Total of expense categories		1,448,298					1,448,298
Total expense for the quarter	\$	1,515,980				\$	1,515,980
Expense categories as a % of total expense	•	95.5%				•	95.5%

FYE 2017	Q1		Q2		Q3			Q4		Year
		31-Jul		31-Oct	31-Jan		30-Apr			to Date
General and administration	\$	553,889	\$	667,165	\$	1,053,052	\$	741,441	\$	3,015,547
Research and product development		597,843		716,495		644,402		661,114		2,619,854
Share-based compensation		116,171		281,847		286,466		349,435		1,033,919
Total of expense categories		1,267,903		1,665,507		1,983,920		1,751,990		6,669,320
Total expense for the quarter	\$	1,330,945	\$	1,734,614	\$	2,037,461	\$	1,836,652	\$	6,939,672
Expense categories as a % of total expense		95.3%		96.0%		97.4%		95.4%		96.1%

FYE 2016	Q1		Q2		Q3		Q4		
	31-Jul		31-Oct		31-Jan		30-Apr		Full Year
General and administration	\$ 400,302	\$	446,267	\$	317,861	\$	479,325	\$	1,643,755
Research and product development	287,773		337,889		371,513		445,747		1,442,922
Share-based compensation	77,834		69,021		182,150		99,879		428,884
Total of expense categories	765,909		853,177		871,524		1,024,951		3,515,561
Total expense for the quarter	\$ 902,865	\$	969,786	\$	964,069	\$	1,084,095	\$	3,920,815
Expense categories as a % of total expense	84.8%		88.0%		90.4%		94.5%		89.7%

<sup>(1)</sup> The presentation noted in this table does not conform to the functional presentation in the Company's interim and annual financial statements. Share-based compensation is included in the functional expense categories in the financial statements but has been removed from the functional disclosure in the table and shown as a separate expense category.

### **Liquidity and Cash Resources**

The Company's cash resources include cash, cash equivalents, and investments. Cash equivalents are invested in money market instruments with maturities of three months or less. At July 31, 2017, investments consisted of a single Canadian provincial government USD stripped bond with a cost of \$60,842 and a fair value of \$58,807.



Table 9 summarizes the changes in cash resources for Q1-F'18 and Q1-F'17. At the end of Q1-F'18, the Company had cash resources of \$627,077 compared to \$5,371,038 at Q1-F'17, reflecting a decrease of \$4,743,961. The difference in the cash resources balance year over year primarily reflects the amount of financing the Company obtained late in Q4-F'16 and in Q1-F'17 through a private placement and through warrant exercises related to warrants expiring in early June 2016. These funds sustained operations since the end of that quarter.

Table 9: Summary of Changes in Cash Resources (1)

	Q1-FYE'18	Q1-FYE'17
Generated from (used in):		
Operating activities	\$ (1,346,531)	\$ (988,782)
Investing activities	1,239,633	(249,094)
Decrease in cash resources before financing activities	(106,898)	(1,237,876)
Proceeds from issuance of common shares and warrants	-	1,607,543
Costs of issuing common shares and warrants	-	(1,387)
Costs of issuing stock options	(3,800)	-
Investment tax credit recoveries	-	-
Interest paid	(722)	(466)
Increase (decrease) in cash resources	(111,420)	367,814
Less: unrealized foreign exchange loss on capital resources	2,821	26,374
Cash resources - beginning of period	717,676	4,976,850
Cash resources - end of period	\$ 609,077	\$ 5,371,038

<sup>(1)</sup> See Use of Non-GAAP Financial Measures.

These cash resources were insufficient at the quarter end to sustain operations through fiscal 2018 and the Company subsequently announced on September 20, 2017, a financing of approximately \$1.5M to support the ongoing development of COTI-2 as the Company advances through the HNSCC Phase 1 clinical trial. The Company is working towards closing a second tranche of this financing in early October 2017 under the same terms and conditions following conditional approval of the financing by the TSX Venture Exchange.

## 1. Financing Activities

The Company continues to seek financing with institutional life science investors and in addition to the Canadian market is also looking to penetrate the U.S. market as a key part of its strategy in building a presence in this significant life science market.

In support of this strategy, the Company announced on June 23, 2017, that, in accordance with the approval of the Company's shareholders obtained on October 13, 2016, the Company was proceeding with a consolidation of the Company's issued and outstanding common shares based on ten preconsolidation common shares for one post-consolidation common share (the "Consolidation"). The Consolidation was subject to the approval of the TSX Venture Exchange and upon approval the Company's common shares commenced trading on a consolidated basis on June 30, 2017.

In addition to the consolidation of the Company's common shares, the Company's outstanding common share purchase warrants and share options were subject to adjustment as outlined under the terms of their respective security agreements. For both common shares and common share purchase warrants,



all fractional post-consolidation shares were rounded to the next lowest whole number if the first decimal place was less than five, and rounded to the next highest whole number if the first decimal place was five or greater. For share options where this calculation resulted in a fractional number of common shares, the number to be purchased was rounded down to the nearest whole number as directed by the Share Option Plan.

Table 14, Outstanding Share Information, sets out the outstanding share information at the date of this MD&A after giving effect to the consolidation. None of the warrants or share options disclosed there are currently in-the-money.

Certain of these warrants contain a trigger provision that provides the Company with the discretionary ability to accelerate the expiry date to a period of 21 days, if for any ten consecutive trading days during the unexpired term of the warrants (the "Premium Trading Days"), the closing price of the common shares on the TSXV equals or exceeds 1.3 times the exercise price set out in the warrant certificate. If this occurs, the reduced exercise period of 21 days will begin seven calendar days after the tenth Premium Trading Day. Any warrants not exercised during this reduced exercise period will expire.

To the extent these warrants are exercised will be a function of the market price of the Company's underlying common shares and investor perspectives on the opportunity for shareholder value creation over the investment time horizon for each individual investor.

Management believes that continued achievement of milestones, such as the progression of COTI-2 in the HNSCC part of the Trial and the advancement of COTI-219 toward an IND filing, may be supportive of an increase in shareholder value and may provide the Company with an opportunity to realize funding from a portion of these outstanding warrants in calendar 2018 and 2019. Table 10 sets out the warrants outstanding, with and without a trigger provision, and the potential gross proceeds from their exercise.

Table 10: Summary of Outstanding Warrants and Potential CAD Proceeds

Price	Warrants (1)	CAD Proceeds
Trigger	1,615,354	\$ 7,887,798
No trigger	376,923	920,366
	1,992,277	\$ 8,808,164

<sup>(1)</sup> Adjusted for the consolidation of June 30, 2017

Table 11 sets out the market prices at which the trigger prices would be reached for those warrants that have an acceleration clause that would allow management to use its discretion in accelerating the forced exercise.



Table 11: Warrants with Accelerated Expiry Dates and Estimated Trigger Prices (1)

			Exercise	# of	Es <sup>-</sup>	timated	CAD
	Exer	ise Price	Currency	Warrants	Trig	ger Price	Proceeds
Compensation warrants	\$	2.60	USD	46,075	\$	9.74	\$ 149,564
Compensation warrants	\$	2.90	CAD	16,281	\$	11.31	47,215
Warrants	\$	3.40	USD	1,001,006	\$	5.52	5,523,920
Warrants	\$	3.80	CAD	551,992	\$	4.94	2,097,572
				1,615,354			\$ 7,818,271

<sup>(1)</sup> The estimated trigger prices were calculated based upon the closing price of the USD-CAD foreign exchange rate at July 31, 2017, and after adjusting for the effect of the consolidation of June 30, 2017. These trigger prices will vary based upon fluctuations in this rate over time.

As the extent and timing of warrant exercise as a source of financing is uncertain, the Company continues to look at alternative financing sources to support operations going forward. The current focus in this regard is on private placements with accredited and institutional investors.

### 2. Capital Expenditures

Capital spending activities in Q1-F'18 totaled \$46,319 consisting of \$3,941 in computer equipment (Q1-F'17 – \$7,510), and \$42,378 in patent costs (Q1-F'17 – \$32,859). Investment in such items will continue as the Company builds upon and protects its CHEMSAS® process, ROSALIND $^{\text{TM}}$  technology and molecules in development. In this regard, the Company received notice in late July 2017 of a second patent grant for its HIV compounds increasing its portfolio of granted patents to twenty-five.

The Company conducts periodic reviews of its tangible and intangible assets for impairment indicators associated with these assets. There were no impairment indicators identified during the quarter that required a reduction in the carrying value of these assets.

### 3. Working Capital

The Company had Adjusted Working Capital at Q1-F'18 showing a deficit of \$386,667 compared to \$972,482 in working capital at FYE 2017 (see Table 16). The Company defines Adjusted Working Capital as the standard working capital calculation adjusted for non-cash liabilities. This definition is a non-GAAP financial measure, does not have a prescribed meaning under IFRS, and therefore may not be comparable to similarly described measures by other issuers. Further details can be found in Use of Non-GAAP Financial Measures.

Current assets decreased to \$1,279,664 at Q1-F'18 from \$2,719,543 at the F'2017 year end for a decrease of \$1,439,879 primarily due to a decrease in Cash Resources resulting from funding the operating expenses. Current liabilities decreased \$1,358,182 to \$1,848,061 at Q1-F'18 from \$3,206,243 at the F'2017 year end primarily due to a decrease of \$1,277,452 in the Warrant liability.



The Company's exposure to fluctuations in the recoverability of its financial assets is limited and the short-term, liquid nature of these investments results in future settlement amounts that are consistent with carrying values. Given the nature of the Company's financial liabilities, there is limited risk that future settlement amounts will differ from their carrying values.

The Company has commitments at July 31, 2017 to pay for the completion of work primarily under research and development contracts related to the COTI-2 Trial. The Company currently expects the Trial to conclude in fiscal 2019. Payment timing of Trial costs is subject to the actual timing of Trial activities such as the enrollment of patients, completion of patient testing, and administration of drug, as well as the negotiated payment terms with the trial site. Summary details of the estimated timing of the Company's commitments are set out below.

Table 12: Contract Commitments

Fiscal Years ending April 30	2018	2019	2020	Total
COTI-2:				
Clinical trial costs	\$ 689,137	\$ 419,374	\$ 310,411	\$ 1,418,923
Other preclinical	118,044	-	-	118,044
	807,181	419,374	310,411	1,536,966
Other molecules	56,023	-	-	56,023
Other non-R&D consulting contracts	157,139	64,007	-	221,146
Total	\$ 1,020,342	\$ 483,381	\$ 310,411	\$ 1,814,135

## **Off-Balance Sheet Arrangements**

The Company does not utilize any off-balance sheet instruments.

### **Foreign Exchange Exposure**

The Company has R&D contracts denominated in foreign currencies, primarily in USD. As a result, the Company has currency risk from fluctuations in exchange rates between the CAD and such currencies. The Company considers its foreign exchange exposure to be low.

During Q1-F'18, the Company's foreign exchange exposure was related primarily to the USD with some modest exposure to CHF. The Company raised USD \$1.1M in financing in March 2016, which provided some natural hedging against USD expenditures during fiscal 2017 and into fiscal 2018.

The Company has warrants outstanding and exercisable at USD prices that could generate USD proceeds to the Company. While foreign exchange rates could cause some fluctuation in the Company's operating results and cashflows, management does not expect this will have a material impact on operations.

The Company's foreign currency exposure at the quarter end is set out in Table 13 below. Excluding the currency impact of the warrant liability, which is a liability, not settled in cash, a 5% strengthening of the CAD against the USD at July 31, 2017, would have increased the Company's loss by approximately



\$25,000. A 5% weakening of the CAD against the USD would have an equal but opposite effect assuming all other variables remain constant.

Table 13: Foreign Exchange Balances Held

As at July 31, 2017	CAD	USD	Other	Total
Cash and cash equivalents	\$ 481,593	\$ 86,551	\$ 126	\$ 568,270
Investments	-	58,807	-	58,807
Other receivables	186	-	4,864	5,050
Accounts payable and accrued liabilities	(989,206)	(616,884)	(36,476)	(1,642,566)
Warrant liability	-	(181,730)	-	(181,730)
Long-term accrued liability	(150,000)	-	=	(150,000)
•	\$ (657,427)	\$ (653,256)	\$ (31,486)	\$ (1,342,169)

## **Related Party Transactions**

Material transactions with related parties during Q1-F'18 were in the ordinary course of business as follows:

a) The appointment of a Chief Scientific Officer ("CSO") effective June 12, 2017 whose compensation package included the award of 400,000 share options.

At July 31, 2017, there were directors' fees payable of \$19,933 (July 31, 2016 – \$5,444) and accrued salaries, benefits, and outstanding vacation pay owing to Executives of \$209,629 (July 31, 2016 – \$241,610).



## **Outstanding Share Information**

Outstanding share information at the close of business on September 27, 2017 is set out in Table 14.

Table 14: Outstanding Share Information

	Outstanding	Expiry Date
Common shares	Outstanding	Expiry Date
Authorized - unlimited		
	46.004.000	
Issued	16,204,282	
Diluted <sup>(1)</sup>	19,283,499	
Weighted average outstanding (2)	15,001,171	
Common share warrants (3)		
\$3.80 warrants	242,055	Mar 29/18
\$2.60 warrants	76,923	Feb 4/19
\$1.90 USD compensation warrants	300,000	Apr 11 - Jun 6/19
\$3.40 USD warrants (3)	1,001,006	Oct 16 - Nov 24/19
\$2.60 USD compensation warrants	46,075	Oct 16 - Nov 24/19
\$3.80 warrants	309,937	Dec 18/19 - Feb 16/20
\$2.90 compensation warrants	16,281	Dec 18/19 - Feb 16/20
	1,992,277	
Common share stock options		
\$1.80 - \$2.50	132,109	Dec 4/18 - Mar 19/20
\$2.51 - \$5.00	619,489	Oct 21/19 - Mar 1/22
\$5.01 - \$7.20	335,342	Jul 4/21 - Jul 16/21
	1,086,940	

<sup>(1)</sup> Assumes conversion of all outstanding common share stock options and warrants.

## **Industry and Economic Risk Factors Affecting Performance**

The biotechnology industry is regarded as high risk given the uncertain nature of developing drug candidates and limited access to capital for companies in this industry. However, success in this industry can be highly rewarding. COTI became a clinical stage company in Q3-F'16 upon initiating a Phase 1 trial for COTI-2. Realizing COTI's long-term potential may occur through the successful development and commercialization of molecules discovered using the Company's drug discovery technology, CHEMSAS<sup>®</sup>.

The major industry and economic risk factors most significant to the Company are discussed below.

### a) Going Concern Risk

The Company's goals for fiscal 2018 include completing the current Phase 1 dose-escalation COTI-2 Trial and expanding the trial into other indications; progressing COTI-219 through the required manufacturing

<sup>(2)</sup> Weighted average shares outstanding calculated from May 1, 2016 to the close of business on September 27, 2017.

<sup>(3)</sup> See Use of Non-GAAP Financial Measures



and preclinical studies to enable a successful IND application submission in early calendar 2018; continuing the development of its internal pipeline of drug candidates; and completing the validation phase of the ROSALIND<sup>TM</sup> platform. As with most early-clinical-stage biotech companies, COTI has not yet established any operating revenue to fund operations and therefore operating cash flows continue to be negative. The material uncertainties discussed under "Liquidity and Cash Resources" and highlighted in note 3 of the Interim Financial Statements identify the risks associated with raising sufficient funds for the Company to accomplish its goals.

The Company is actively pursuing financing and strategic opportunities as described under Financing above. The Company has discretion with many of its expenditure activities and will responsibly manage these activities in fiscal 2018 within its available cash resources. While the Company has a successful history of obtaining required financing and has no reason to believe it will not continue to do so, there is no certainty that sufficient funding can be obtained to alleviate the going concern risk in future periods.

### b) Uncertainties Related to Research

Like other biotech and pharmaceutical companies, COTI's research programs may not lead to desired results. In addition, the timeframe for obtaining test results may be longer than planned or may not be possible given time, resources, and other constraints. Success in one stage of testing is not necessarily an indication of success in later stages of testing and development. It is not possible to guarantee, based upon studies in *in vitro* models and in animals, whether any of the compounds will prove safe, effective, and suitable for human use.

### c) Clinical Trial Risks

Clinical trials are expensive and carry several risks, including:

- i. the requirements of government authorities that regulate the advancement of drug candidates through the testing and approval stages;
- ii. the requirements of clinical investigator institutions;
- iii. the potential failure to achieve the targeted safety and efficacy endpoints of the specific trial;
- iv. the potential suspension of a clinical trial by regulatory officials due to unacceptable health risks;
- v. the substantial periods of time necessary to complete the trial that cannot be easily predicted or controlled due to unknown or unexpected events involving patients and other external factors;
- vi. the potential for failure at any stage of the trial due to unacceptable toxicities or other unforeseen safety issues;
- vii. the potential for problems that cause the Company to repeat some or all parts of a trial, amend the trial protocol, or abandon the trial; and,
- viii. a slower than expected patient enrollment rate.



In summary, clinical trials may fail at various stages and for a multitude of reasons, which could have severe consequences for the business.

### d) Lack of Revenues

The revenue cycle for drug development is long; typically 5 to 10 years depending when monetization of the asset occurs. COTI continues to develop relationships with prospective customers and to selectively seek strategic licensing and collaboration opportunities. The Company has not entered into a licensing agreement to date and will assess the merits of doing so opportunistically, with a view to its strategic plan. The continued development of COTI-2 and the resulting human test data for toxicity and efficacy are important elements of potential licensing or partnership deals. Operating losses will continue until future revenues are sufficient to fund continuing operations. COTI is unable to predict when it will become profitable, or the extent of any future losses or profits. The Company will continue to seek strategic sources of financing to fund its operations in the interim.

## e) Securing Adequate Licensing Agreements

Securing licensing agreements is one avenue for the Company to commercialize its products. Positive results in the Phase 1 clinical trial of COTI-2 are expected to generate increased interest in potential licensing agreements for this drug candidate. Despite positive test results, there is no certainty that licensing deals can be negotiated for COTI-2 or COTI's other compounds. There is also no certainty that COTI can obtain licensing terms that are acceptable or that indicate a commercially viable market for its products.

### f) Access to Capital

COTI continually monitors its Cash Resources to support its R&D programs. In "Liquidity and Cash Resources", the Company noted the need for additional financing to fund operations while it is prerevenue. If sufficient financing cannot be obtained on a timely basis, COTI may have to delay, reduce or eliminate one or more of its R&D programs or obtain funds on less favourable terms. While prior financing efforts have always been successful, there can be no assurance additional funding will be obtained.

### g) Foreign Currency Risk

The Company is exposed to some foreign currency risk primarily related to the USD and to a lesser extent the EUR, GBP and CHF. The Company's clinical trial is being conducted at U.S. sites that are paid for their services in USD. The Company also holds USD investments. While having both USD assets and liabilities provides some natural hedging to this exposure, it is not a formal hedge program matching such exposure. To date, the Company has not engaged in a formal hedge program related to its foreign currency risk due to the limited exposure.



#### **Use of Non-GAAP Financial Measures**

Management has included three non-GAAP financial measures, Cash Resources, Adjusted Working Capital, and Common Share Warrants Outstanding to supplement information in this MD&A. These non-GAAP measures do not have a standardized meaning prescribed under IFRS and may not be comparable to similar measures when presented by other issuers.

#### a) Cash Resources

The Company looks at its available cash for operations based on all Cash Resources, which it defines as cash, cash equivalents, and investments. This differs from IFRS disclosure in the Company's financial statements where Cash is defined as cash and cash equivalents. The difference is the inclusion of investments as "cash available for operations". The investments held by the Company at Q1-F'18 are relatively readily-cashable government bonds, so the Company treats them for management purposes as Cash Resources. Accordingly, management believes the inclusion of the investments as part of Cash Resources provides more meaningful information related to the liquidity of the Company, and the cash available for operations.

Table 15: Reconciliation to Cash

	July 31	, 2017	April 30, 2017		
	Cash per MD&A	Cash per Financial Statements	Cash per MD&A	Cash per Financial Statements	
Cash and cash equivalents	\$568,270	\$568,270	\$717,676	\$717,676	
Short-term investment	58,807	-	1,291,160		
Cash	\$627,077	\$568,270	\$2,008,836	\$717,676	

#### b) Adjusted Working Capital

The Company uses Adjusted Working Capital to monitor and review cash required for operations. Adjusted Working Capital is defined as the standard working capital calculation adjusted for non-cash liabilities as set out in Table 16.

The standard working capital calculation results in a lower amount of working capital than what the Company measures as working capital. The Company uses Adjusted Working Capital to remove the accounting treatment of warrants issued with an exercise price in USD being accounted for as a liability in accordance with IFRS accounting principles.

For clarity, the warrant liability represents warrants denominated with a USD exercise price which, if exercised, will bring in cash to the Company and accordingly represents a "liability not settled in cash". Thus, Adjusted Working Capital reflects a more accurate view of the Company's working capital position as it relates to liabilities where the Company has an actual legal expectation to issue cash in settlement.



Table 16: Adjusted Working Capital

	July 31, 2017	April 30, 2017
Amounts per financial statements:		
Current assets	\$1,279,664	\$2,719,543
Current liabilities	1,848,061	3,206,243
Working capital	(568,397)	(486,700)
Adjustment for non-cash items:		
Warrant liability	181,730	1,459,182
	(\$386,667)	\$972,482

## c) Common Share Warrants Outstanding

The Company discloses warrants, accounted for as Warrant liability under IFRS, as part of its outstanding warrant information when disclosing the components required in setting out its Outstanding Share Information (see discussion under Adjusted Working Capital). This presentation is made for two reasons; first, upon exercise of these warrants the Company will issue shares in settlement of this liability, which will form part of future share capital and accordingly is of relevance in reviewing the future share structure and potential dilution for existing and potential investors as reflected in the number of shares outstanding if all were fully exercised; and, second, the exercise of these warrants will provide cash to the Company to fund operations consistent with the exercise of warrants accounted for as part of share capital.

Table 17: Reconciliation of Common Share Warrants Outstanding

	July 31	, 2017	April 30	, 2017
	Outstanding warrants per MD&A	Outstanding warrants per Financial Statements	Outstanding warrants per MD&A	Outstanding warrants per Financial Statements
Warrants included in total share capital	991,271	991,271	2,216,316	2,216,316
Warrants included in warrant liability	1,001,006	-	1,001,006	
Total outstanding warrants	1,992,277	991,271	3,217,322	2,216,316

### **Changes in Accounting Policies**

The Company did not adopt any new accounting policies in the Period.

### (a) Accounting pronouncements not yet adopted

The IASB has issued new standards and amendments to existing standards. These changes in accounting were not yet effective at May 1, 2017, and could have an impact on future periods. The Company does not expect the amendments to have a material impact on the financial statements. The new or amended standard that may affect the Company for the financial reporting year ended April 30, 2018, is set out below. Management is assessing the impact of this standard on the financial statements.



## (i) IFRS 9 - Financial Instruments

In July 2014, the IASB issued the final publication of the IFRS 9 standard, superseding the current IAS 39 - Financial Instruments: recognition and measurement standard. IFRS 9 includes revised guidance on the classification and measurement of financial instruments, including a new expected credit loss model for calculating impairment on financial assets, and the new general hedge accounting requirements. It also carries forward the guidance on recognition and de-recognition of financial instruments from IAS 39. The standard is effective for annual periods beginning on or after January 1, 2018 with early adoption permitted.