ANNUAL INFORMATION FORM

For the financial year ended April 30, 2014

Dated July 24, 2014

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1.0 PRELIMINARY INFORMATION

1.1 General

As used in this annual information form ("AIF"), unless the context otherwise requires, the terms "we", "us", "our", "COTI" or the "Company", mean or refer to Critical Outcome Technologies Inc.

Except as otherwise stated, all dollar amounts are in Canadian dollars ("CAD").

All information in this AIF is as at April 30, 2014 unless otherwise indicated.

1.2 Cautionary Statement Regarding Forward-Looking Statements

This AIF contains certain statements, which constitute "forward-looking statements" ("FLS") within the meaning of applicable Canadian provincial securities laws concerning the Company's plans for its operations and other matters. FLS are by necessity based on a number of estimates and assumptions that are inherently subject to significant business, economic and competitive uncertainties, and contingencies. All statements, other than statements of reporting results as well as statements of historical fact, that address activities, events or developments the Company believes, expects or anticipates will or may occur in the future are FLS. These FLS reflect the current expectations or beliefs of the Company based on information currently available to the Company. FLS are subject to a variety of risks and uncertainties that may cause the actual events or results of the Company to differ materially from those discussed in the FLS. Even if such actual events occur or results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on, the Company.

Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or 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 Company operates in a highly competitive and regulated environment involving significant risks and uncertainties, which could cause actual events or results to differ from those reflected in the FLS, including, without limitation: a lack of product revenues and a history of operating losses, dependence on third party synthesis and contract research organizations, the ability to develop proprietary compounds and obtain patent protection for these products, risks related to protecting trade secrets and proprietary expertise, uncertainties related to research, dependence on key personnel, risks related to defence of third-party intellectual property infringement claims, the ability to negotiate licensing agreements with biotech or pharmaceutical companies, risks related to meeting projected time-frames, risks related to pre-commercialization of potential product, uncertainties related to forecasts, unforeseen emergency situations, risks related to legislative actions, new accounting pronouncements and increased insurance costs, lawsuits related to secondary market liability, dilution of investment for current shareholders, common share price volatility, risks related to pricing of future equity offerings, risks relating to realizing the benefits of Federal and Provincial investment tax credits, no expectation that COTI will pay dividends in the near future, risks related to COTI's projections and

assumptions regarding the anticipated market for its products, competition, ability to obtain regulatory approvals for COTI's drug candidates, risks relating to government regulation of the manufacture, marketing and sale of COTI's drug candidates, risks related to healthcare system reforms, risks related to rapid technological change, and other risks and uncertainties related to the Company's prospects and business strategy described under Risk Factors in this AIF. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in the FLS. FLS are made based on management's beliefs, estimates, and opinions on the date the statements are made and the Company undertakes no obligation to update FLS if these beliefs, estimates and opinions or other circumstances should change except as may be required by applicable securities laws. Although the Company believes that the assumptions inherent in the FLS are reasonable, there can be no assurance that the FLS will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements as FLS are not guarantees of future performance and accordingly readers should not place undue reliance on FLS due to the inherent uncertainty therein.

2.0 CORPORATE STRUCTURE

2.1 Name, Address and Incorporation

The legal and commercial name of the Company is Critical Outcome Technologies Inc. The Company's registered and head office is located at The Stiller Centre, Suite 213, 700 Collip Circle, London, Ontario, N6G 4X8.

COTI is a London, Ontario based company resulting from the amalgamation on October 13, 2006 of Aviator Petroleum Corp. ("Aviator"), a public capital pool company ("CPC"), 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 amalgamation constituted the Qualifying Transaction for Aviator as a CPC pursuant to the policies of the TSXV. The amalgamated company adopted the name Critical Outcome Technologies Inc. and its common shares were listed and posted for trading on the TSXV under the symbol COT on October 30, 2006.

On November 27, 2007, the Company completed an acquisition of all outstanding common shares in the capital of 3015402 Ontario Inc. operating as DDP Therapeutics ("DDP"), in which the Company had, up to the date of the acquisition, a 10% ownership interest. DDP was formed in 2005 to develop a library of small molecules discovered by COTI using its drug discovery technology and initially targeted at small cell lung cancer ("SCLC").

On May 1, 2008, the Company amalgamated with DDP, its wholly owned subsidiary, under the *Business Corporations Act* (Ontario).

2.2 Inter-corporate Relationships

The Company had no subsidiaries as at April 30, 2014 or the date of this AIF.

3.0 GENERAL DEVELOPMENT OF THE BUSINESS

3.1 Three Year History

During the past three fiscal years ended April 30, 2012-2014, the Company had the following achievements:

- made strides in its efforts to commercialize and validate its platform technology, CHEMSAS®;
- expanded the scalability of CHEMSAS® to do multiple projects through increased automation;
- improved the predictive capability of CHEMSAS® with new and refined predictive capabilities;
- further advanced the preclinical development of a number of its compounds in particular the lead oncology compound, COTI-2, for licensing;
- established new research projects utilizing CHEMSAS® in collaborative engagements with a medium to longer term revenue focus;
- developed and qualified a list of interested licensing prospects for COTI-2;
- advanced new product applications based upon CHEMSAS® and moved into market testing and further development based upon initial alpha testing customer feedback; and,
- commenced prototyping and product development of a new predictive technology based upon the knowledge gained concerning cancer that evolved from CHEMSAS® discovery projects.

These were accomplished by executing on the Company's business strategies, engaging qualified, professional consultants, and establishing relationships with preferred contract research organizations.

The major events supporting the achievements that occurred in the Company's business over this three-year period are described below under four headings:

- Commercial Validation/Revenue Generation
- Product Development
- Capital Financing
- Board of Directors

3.1.1 Commercial Validation/Revenue Generation

Since inception, the Company has strived to gain market recognition of COTI's proprietary technology, CHEMSAS®, for its potential to dramatically improve the identification and evaluation of lead candidates for drug development programs. This improvement increases the probability of developing successful compounds in the clinic as well as lowering the cost and time to getting these compounds to the clinic with the attendant benefit of increasing the period for marketing the drug under patent protection.

During the 2012-2014 fiscal periods, the Company employed a two-pronged approach to obtain commercial validation of CHEMSAS® through a revenue event(s). This approach involved:

- moving one of the initial compounds identified by the technology, COTI-2, forward through traditional preclinical testing towards the clinic with an objective of obtaining a licensing deal with a major pharmaceutical or biotech company; and,
- entering into research and development ("R&D") collaborations with third parties wherein COTI would use CHEMSAS® to identify lead compounds for their targets of interest.

A. COTI-2 Licensing

Efforts to license COTI-2 were focused in the following areas:

- preclinical scientific development;
- identification and engagement of key opinion leaders ("KOL"); and,
- business outreach to potential licensees.

Preclinical scientific development

The focus of testing and experiments during the fiscal 2012-2014 period was to move COTI-2 forward toward the clinic thereby derisking the asset for potential licenses and identifying particularly attractive aspects of the compound as a drug treatment, which would garner both an interest and a desire to license given the quality of the treatment and market potential. As outlined under Product Development, the Company was able to achieve important scientific testing results that helped achieve this goal as follows:

1. Completed the identification of an oral formulation for COTI-2 that is being used for the final toxicity studies in completing the investigational new drug ("IND") enabling experiments and a Phase 1 clinical study;
2. Started the final toxicity studies in two animal species using the selected oral formulation of COTI-2 with completion expected by the end of July 2014;
3. Completed formulation development analyses necessary for the IND submission package;
4. Developed and refined a bioanalytical detection method analysis for mice and dogs to detect COTI-2 in blood and tissues for use in the final toxicity studies;
5. Conducted further extensive investigation of the drug's mechanism of action ("MOA") testing in four key areas – iron chelation, cancer stem cells, mTOR Rictor pathway, and significant investigation of p53 mutations;
6. Identified the major MOA being the restoration of p53 functionality leading to normal cell signalling and the death of cancer cells;
7. Demonstrated activity for COTI-2 as a first line single agent as well as the ability to enhance other drug therapies when used in combination therapy;
8. Received additional patent grants in the U.S. for the compound as described more fully in section 4.9 Intellectual Property;

9. Identified a companion diagnostic test for screening patients likely to benefit from COTI-2 treatment and measuring the success of the treatment; and,
10. Prepared and submitted an application to the U.S. Food and Drug Administration ("FDA") for an Orphan Drug Designation for COTI-2 in the treatment of ovarian cancer.

Identification and engagement of Key Opinion Leaders

To garner support for the development of COTI-2 and what the Company saw as a novel, first-in-class, potential breakthrough therapy, the Company sought to gain peer review of its test results and to attract collaborative R&D guidance as to the appropriate development path for the compound. Progress in this effort occurred through seven podium presentations at various conferences during the three year period with the most recent at the 12th Annual BIO Investor Forum in San Francisco in October 2013.

With the identification of COTI-2's major MOA being the restoration of p53 functionality, the Company sought key opinion leaders in this area. Using the contacts developed from its conference efforts, the Company was able to create a short list of the three leading cancer researchers in the p53 space. This led to the development of a relationship with Gordon Mills, M.D., Ph.D., Chair of the Department of Systems Biology, and the Co-director of the Khalifa Institute for Personalized Cancer Therapy at The University of Texas MD Anderson Cancer Center ("MDACC") in Houston, Texas. Dr. Mills conducted an extensive review of the COTI-2 data package in August 2012 and since then has followed up with guidance as to additional testing needed to further understand and confirm the p53 MOA. Substantial testing has been conducted with the engagement of Dr. Mills and MDACC as outlined under Product Development.

Business Outreach to Potential Licensees

Building on the scientific progress, the goal was to attract a licensee based upon bringing a first-in-class treatment to the millions of people suffering from many common cancers where p53 mutations were involved. The Company communicated scientific results to potential licensees based upon their indicated interest, with a focus on outreach to them as significant pre-clinical risk reduction milestones were achieved. In addition to its own internal outreach efforts, which were limited by financial and human resources, the Company engaged a life science commercialization consulting firm, with considerable experience and contacts in the industry, Destum Partners, Inc. of Charlotte, NC. This consulting engagement was primarily a performance based agreement and added greatly to COTI's own efforts to license COTI-2 as a formal outreach program resulted in contacts with over 75 companies during calendar 2013.

The key risk reduction studies communicated to potential licensees and their significance to a licensee are set out in Table 1 below.

Table 1: Risk Reduction Studies

	Risk Reduction Study	Significance
1	Refinement of understanding and validation of the mechanism of action	Important in understanding test outcomes and potential side-effects of treatment and further adjunct therapy that might be necessary in humans and assists in the design of the clinical trials including the target population
2	Development of oral formulation for Phase 1 human trials	Most current cancer therapies are administered intravenously. An effective oral therapy has many benefits such as lower cost of administration to patients and ease of administration by the patient
3	Final two species toxicity experiments that form part of the IND submission	Validates earlier toxicity testing outcomes which used various formulations and in multiple studies both *in vitro* and *in vivo* by providing a final study demonstrating acceptable toxicity outcomes in two mammalian species prior to moving to humans
4	Identification of a diagnostic and therapeutic biomarker	Valuable to evaluating eligible study patients and test outcome success

From a strategic perspective, reaching these significant scientific milestones in the preclinical development of COTI-2 moved this compound towards what will be COTI's first CHEMSAS® derived compound to seek IND approval. This approval would validate CHEMSAS® as an artificial intelligence drug discovery method capable of identifying lead compounds that can be successfully developed into human clinical trials.

In April 2014, the Company announced the submission of an Orphan Drug Application to the FDA for the treatment of ovarian cancer to further support the scientific and business attractiveness of COTI-2 for licensing. This submission was based upon the belief that COTI-2, with its p53 dependent MOA, represents a significant therapeutic advantage over treatments currently available for ovarian and other gynecological cancers. The fact that more than 95% of serious ovarian cancers have a p53 gene mutation, combined with the extent of the unmet medical need in ovarian cancer patients, makes a treatment for this indication an important opportunity.

The Orphan Drug Designation may qualify the Company for several benefits under the U.S. Orphan Drug Act of 1983 as amended. COTI-2 would be directed down a unique development pathway within the FDA, including assistance with study design and the possibility of an expedited regulatory process with the potential for fewer patients to be required in clinical trials. Other benefits may include a seven-year period of orphan drug exclusivity upon product approval, fee reductions, and eligibility for drug grants from the National Institutes of Health in the U.S.

B. Collaborations

The purpose of pursuing R&D co-development, collaboration agreements was to validate the CHEMSAS® technology by entering into revenue generating engagements using the CHEMSAS® platform. Such agreements would provide ongoing independent third party validation of CHEMSAS® as a powerful artificial intelligence drug discovery engine across multiple targets and as a commercial asset,

highlighting that CHEMSAS® is not restricted to a single disease type or class of drugs but can be used across multiple diseases and to support projects both internally and for third parties. These collaboration projects could have significant revenue generating potential and the Company sees potential to add to these pilot projects in the future as financial resources become available.

In this regard, the Company announced three collaborations in fiscal 2013 for therapies targeted at CNS scarring, cancer, and a confidential target. In fiscal 2014, the Company began preliminary work on a compound to treat MRSA related to a potential collaboration with a European-based Pharma. An outline of these collaborations and their progress at April 30, 2014 appears below.

1) Anti-scarring Discovery Project with Western University

The Company signed a collaborative research agreement ("CRA") effective for two years from July 25, 2012, with Western University ("Western") and a Western researcher located in London, Ontario, Canada. Under the agreement, the Company was to utilize its proprietary technology CHEMSAS® to discover and optimize novel drug candidates as potential therapies for minimizing central nervous system ("CNS") scarring following trauma or stroke. This is an area of clear unmet medical need with at least 1.7 million incidents annually of traumatic brain injury in the United States alone with no effective therapies available to minimize the scarring that results from the injury.

The researcher and Western would evaluate the identified compounds to test the suitability of the molecules as leads for the cellular target. COTI is solely responsible for its internal costs associated with the performance of its obligations under the CRA. Western is solely responsible for identifying and securing the funding to perform its obligations under the CRA. Western and COTI jointly own all rights, title, and interests in and to the Intellectual Property ("IP") that is developed by the COTI researchers and Western researchers in the collaboration. Ownership of the joint IP will be equal unless decided otherwise by the two parties. If any of the candidates meet pre-determined development criteria, COTI and Western will work jointly to move the candidates towards clinical confirmation of activity and a commercial licensing transaction.

Under the CRA, the Company received a payment of $25,000 from Western as a service fee for its screening and validation performance in fiscal 2013. A small library of seven potential lead compounds were identified by COTI in October 2012 and provided to Western to test for activity against the specific cellular target. In May 2013, the Company announced that two of the compounds provided met the predetermined development criteria and Western was proceeding with further testing on the other compounds. Animal testing on several of the compounds proceeded during fiscal 2014 and positive results justified proceeding with further animal testing to provide a strong proof of concept scientific data package. At April 30, 2014, Western was waiting approval on a grant application to provide additional financing for completing the proof of concept studies. COTI and Western were also moving ahead jointly with a patent application. Once the application is filed, Western would be in a position to share the results with an identified international partner for licensing or additional funding in a co-development.

The Company's costs of performance under the CRA, consisting of labour and associated employee benefits and patent search costs, were expensed as incurred and reported in Research and product development in the Company's Statements of Comprehensive Loss in the annual financial statements.

2) Angiogenesis Discovery Collaboration with Delmar Chemicals Inc.

On August 22, 2012, the Company entered into a research and development collaboration agreement ("RDCA") to advance selected small molecules with Delmar Chemicals Inc. ("DCI") of Montreal, Quebec, Canada. The companies will work together to discover, select, screen and synthesize compounds for highly desirable commercial and therapeutic targets that have been identified as being of specific interest to major pharmaceutical companies. The agreement does not have a specific end date and may encompass a number of compound targets over several years; however, either party may terminate the agreement subject to sixty days' written notice. Under the RDCA, COTI will utilize CHEMSAS® to discover and optimize novel drug candidates designed to address effectively a number of opportunities. COTI will also be responsible for filing provisional composition of matter patents on any compounds forwarded to a major pharmaceutical company ("Major Pharma") for their evaluation and managing the relationship with such Major Pharma. Delmar will provide medicinal chemistry analysis of the chemical structures as well as the synthesis of the most promising candidates. Each party is solely responsible for its internal costs associated with the performance of its obligations under the RDCA.

The initial project targets angiogenesis inhibiting small molecules identified to be of potential interest in the Open Innovation Drug Discovery ("OIDD") program of Eli Lilly and Company. COTI identified a series of novel structures and submitted these to the OIDD program in February 2013. On May 6, 2013, the Company announced the compounds successfully passed the initial computational screens that focused on novelty, synthetic feasibility, and potential toxicity. The composition of matter patentability of these optimized structures was evaluated and confirmed. Two of the three compounds have been synthesized by DCI and the final compound synthesis is expected early in fiscal 2015. Once the final compound is synthesized, the compounds will be transferred to the OIDD program for its in-house assay testing. Results from such testing are expected to take 4-6 months.

The Company's costs of performance under the RDCA, consisting of labour and associated employee benefits and patent search costs, were expensed as incurred and reported in Research and product development in the Company's Statements of Comprehensive Loss in the annual financial statements.

3) Lead discovery project with multinational pharmaceutical company

On December 6, 2012, the Company announced the signing of a drug discovery agreement ("DDA") with a multinational pharmaceutical company ("Pharma") whereby COTI would use its proprietary artificial intelligence drug discovery system, CHEMSAS®, to identify and optimize a number of small molecules against a specific and difficult target of commercial interest to the Pharma.

Under the terms of the DDA, COTI is responsible for the discovery, profiling, and optimization of targeted drug candidates in a two-step approach. This involves identifying and delivering an initial set of compounds discovered using CHEMSAS®. The Pharma will then evaluate these compounds and provide

COTI with the results of their analysis. Based upon this feedback, COTI will further optimize the compounds. The Pharma will test and evaluate the final optimized compounds and, during an option period, decide the suitability of the molecules as leads for the proposed cellular target and conclude a license. If a licensing agreement is not reached, COTI will retain all intellectual property rights to the data and compounds and will be able to engage other interested parties for this program.

The Company commenced the first step of the project in December 2012 and delivered an initial set of compounds in February 2013. In May 2013, the Company announced initial test results received from the Pharma indicated a number of the submitted compounds met or exceeded the project target objectives and further testing was ongoing. The Company is awaiting further direction from the Pharma as to final test data and conclusions as to what further refinements and optimization might be required to get final candidates for the Pharma to evaluate in the second phase of the project. The Company has identified some independent testing of the compounds, based upon the preliminary test data, which could be done to move the project along if it had the financial resources for this. Depending upon the results of the second phase testing, either a licensing deal will be concluded or COTI will retain all data and intellectual property and will be free to engage other parties who may have an interest in the target.

The Company's costs of performance under the DDA, consisting of labour and associated employee benefits and patent search costs, were expensed as incurred and reported in Research and product development in the Company's Statements of Comprehensive Loss in the annual financial statements.

4) MRSA Compound Project

Based upon discussions with a European-based Pharma, the Company undertook preliminary work in the last quarter of fiscal 2014 on the identification of a compound(s) targeted at methicillin-resistant staphylococcus aureus ("MRSA"). MRSA is a strain of staphylococcus aureus that has developed through the process of natural selection, resistance to beta-lactam antibiotics, which include the penicillins (methicillin, dicloxacillin, nafcillin, oxacillin, etc.), and the cephalosporins. The evolution of such resistance does not cause the organism to be more intrinsically virulent than strains of staphylococcus aureus that have no antibiotic resistance, but resistance does make MRSA infection more difficult to treat with standard types of antibiotics and thus more dangerous and especially troublesome in hospitals, prisons, and nursing homes, where patients with open wounds, invasive devices, and weakened immune systems are at greater risk of infection than the general public. Following completion of this initial work, the Company will share the preliminary results with the European Pharma with a goal of establishing a co-development/collaboration project to develop the compound forward and should they not be interested in entering collaboration for further development the Company will seek another potential partner in this important area of unmet medical need.

3.1.2 Product Development

Product development efforts during the three-year fiscal period of 2012-2014 were conducted with activities targeted on the following product priorities:

- COTI-2, the Company's lead cancer drug candidate;
- An AML program, with a focus on FLT3 mutations common in 40% of leukemias;
- Completion of work required by the Company under collaboration agreements;
- Improvements in the CHEMSAS® platform;
- Development of new revenue generating applications derived from CHEMSAS®; and,
- Development of CHEMSAS® derived compounds to follow COTI-2 and AML.

A. COTI-2

In November 2007, the Company announced the acquisition of DDP. The acquisition brought back in house a library of compounds originally discovered by COTI using its CHEMSAS® technology. COTI's current lead oncology compound, COTI-2, was the most advanced compound of this library.

The Company has focused most of its R&D program third party spending on moving COTI-2 forward towards human clinical trials to provide both scientific and commercial validation of CHEMSAS® and to ultimately license COTI-2 for clinical development. These R&D experiments were designed to:

- broaden the therapeutic indications for COTI-2 beyond its initial target of SCLC, both as a single agent and in combination therapy;
- assess the efficacy and toxicology of COTI-2 through both *in vitro* and *in vivo* testing;
- determine and broaden the understanding of the primary mechanism of action; and,
- identify an oral formulation for the final IND studies and ultimate use in a Phase 1 human clinical trial.

The major highlights of these R&D efforts are summarized below.

Fiscal 2012

(a) In May 2011, the Company announced the initiation of a project to identify an oral formulation of COTI-2 for use in humans that would maximize the amount of an orally administered dose absorbed into the body. An experienced formulation company with a record of success in formulating more than 100 development stage small molecules for clinical use, commenced this study in mid-May 2011.

(b) In June 2011, the Company announced preliminary results for the COTI-2 pharmacodynamic ("PD") animal experiments commenced in April 2011. COTI-2 demonstrated significant single agent efficacy in an animal model of human ovarian cancer using a cancer cell line (Ovcar-3) that specifically over-expressed AKT. These initial results provided strong supportive evidence for the continued development of COTI-2 as a first line, single agent therapy for the treatment of ovarian cancers over-expressing AKT.

(c) In October 2011, the results of the PD studies were announced confirming that treatment with COTI-2 produced the expected changes in important proteins including GSK3β and caspase-9 that are known to be direct phosphorylation targets for AKT/AKT2. Importantly, COTI-2 produced increased levels of activated caspase-9 which promotes apoptosis (cell suicide) in susceptible cancer cells. Moreover, the available single dose pharmacokinetic data from this study indicated that once-daily oral therapy with COTI-2 may be optimal. These results were highlighted in a November 2, 2011 podium presentation given by Dr. Wayne Danter at a scientific conference, Discovery on Target: Emerging Targets for the Kinase Inhibitor Pipeline, in Boston, MA.

(d) In February 2012, the Company announced the development of eight oral formulation candidates for COTI-2 as potential Phase 1 oral formulations. The next step in the formulation process was to select the best candidate from the group based upon a number of criteria including ease of manufacturing, efficacy, and pharmacokinetic profile, including bioavailability. The final candidate would be used to complete the two-species toxicity testing for the COTI-2 IND submission package and in the Phase 1 human clinical trial.

(e) The oral formulation work also produced a more detailed understanding of how COTI-2 is likely to behave in the body. Experiments involving two rodent species demonstrated orally administered COTI-2 is handled in a complex but common way that produces sustained levels of COTI-2 in the blood for at least 48 hours after a single dose. This suggests COTI-2 can be developed as an out-patient cancer therapy taken daily or even on alternate days. A daily oral medication is usually considered optimal for home based patient administration because of the ease of patient compliance.

(f) Also in February 2012, the Company announced the engagement of an internationally recognized contract research organization ("CRO") to develop a validated detection method for measuring COTI-2's concentration in human plasma.

Fiscal 2013

(g) In September 2012, the Company announced that it had finalized an oral formulation of COTI-2 for use in the final preclinical studies supporting the IND submission enabling a Phase 1 human clinical trial. This oral formulation was designed to optimize the absorption of an orally administered dose of COTI-2 and be administered by pill or capsule.

COTI also announced that it had successfully developed and validated a robust quantitative detection method for detecting COTI-2 in the blood and tissues of treated subjects. Both Health Canada and the FDA require a validated detection method for measuring a drug's concentration in human plasma as part of the IND submission package for use in the Phase 1 trial.

(h) Also in September 2012, the Company announced the initiation of the final series of toxicity experiments in two animal species for COTI-2. The data from these experiments are an important part of the toxicity package required by the FDA for a first in human trial.

(i) In September 2012, the Company also announced new test results that broadened the understanding of the MOA. Previous preclinical studies of the MOA showed that COTI-2 modulated the PI3K/AKT/mTOR pathway. However, the new data derived from gene profiling and *in vitro* testing indicated that COTI-2 is particularly effective in treating cancer cell lines with p53 mutations, an effect not associated with AKT inhibitors. These findings helped clarify some of the positive results seen in earlier experiments and trials that were not explained by AKT inhibition alone.

COTI-2 has a chemical structure that puts it in a class of compounds referred to as thiosemicarbazones. The recognized "class effects" of thiosemicarbazones include metal ion chelation, the generation of reactive oxygen species, cancer cell apoptosis, and the ability to convert certain specific and common p53 mutations to wild type configuration with normal tumor suppressing function. Results from multiple animal models of human cancers indicate that these "class effects" of COTI-2 are central to understanding the outcome of these experiments in the context of their potential therapeutic implications.

The detailed analysis of the gene profile and the *in vitro* test data produced the following results:

i. Multiple genes directly involved with metal binding and programmed cancer cell death were turned on, which is consistent with the known effects of this class of drugs,

ii. COTI-2 was confirmed to bind to iron in a cell free assay, a common attribute of this class of compounds leading to programmed cancer cell death, and;

iii. The data obtained for 40 human cell lines revealed, in a detailed statistical analysis, that the presence of any p53 mutation strongly predicted cancer cell sensitivity at a very low concentration of COTI-2.

(j) In December 2012, the Company released new test results proving that COTI-2 stops many cancer cells from replicating by correcting the effects of specific genetic errors affecting the p53 gene. COTI's previous research had identified a strong statistical relationship between the presence of several p53 mutations and COTI-2's *in vitro* effectiveness in cancer cell lines with these mutations.

These experiments showed that COTI-2, at a low dose, restored the normal protein configuration of the R175H p53 gene mutation and did not affect normal p53 protein. The R175H variant is found in many human cancers with additional strong statistical evidence suggesting that COTI-2 is highly effective in at least two other p53 'Hotspot' mutations found in about 20% of all human cancers.

Fiscal 2014

(k) In June 2013, the Company announced positive results from experiments carried out in the cancer research laboratories of Dr. Gordon Mills at MDACC. These preclinical experiments were designed to determine independently and definitively the effect of COTI-2 in 32 common p53 mutations.

Extensive data from the experiments demonstrated that:

i. COTI-2 has a major mechanism of action that is dependent on p53 gene mutation status in human cancer cells. This is of significant therapeutic importance because more than 50% of all human cancers have at least one type of p53 mutation;

ii. COTI-2 restores p53 protein to its normal function in human cancer cells with a wide range of common p53 gene mutations. This range includes three of the most common mutations found in about 20% of all human cancers;

iii. COTI-2 is also effective in the presence of common mutations in the PI3K/AKT/mTOR cell-signaling pathway. This means that COTI-2 is effective in cancers with mutations that lead to over expression of the tumor promoting protein, AKT;

iv. COTI-2 is generally less effective in human cancer cells with no mutant p53 protein; however, it is highly active in some cells where the p53 gene is not mutated such as occurs in some cancers where the p53 gene has been lost;

v. the selection of patients for initial clinical trials could be based on the p53 gene mutation status of the patient's tumor. This would ensure that COTI-2 is administered to patients who are likely to benefit the most; and,

vi. a companion diagnostic test using the cell signaling proteins that respond to normal p53 protein could be developed to evaluate COTI-2 therapy in tumors with specific p53 mutations.

(l) In September 2013, the Company initiated the final toxicity testing experiments in two-species with a well-known and experienced international CRO. The first of these studies, acute and seven-day range finding oral toxicity, were completed in November 2013. Based upon these results, the Company conducted further testing to refine the oral formulation to improve bioavailability as well as improvements in the COTI-2 detection method for the two-species experiments.

(m) In February 2014, the Company announced that funding was obtained to enable the completion of the final preclinical toxicity experiments being the 28-day two-species studies. These studies were initiated immediately with preliminary results expected to be publicly available by the end of July 2014.

The next steps in the development of COTI-2 toward licensing and an IND filing in calendar 2014 appear under section 3.4 Future Plans.

B. Acute Myelogenous Leukemia ("AML") Program

The AML program is currently planned to be the Company's potential follow on project for development and licensing once COTI-2 is licensed. This program moved along slowly during the 2012-2014 fiscal years as both time and internal resources permitted. Much of the development cost during the period was funded, as set out in Table 2, from a Contribution Agreement signed in June 2010 with the National Research Council of Canada Industrial Research Assistance Program ("IRAP"). The program provided technical and business oriented advisory services in addition to funding.

Table 2: Three Year History of IRAP Funding

Year	Funding Received	R&D Progress
2012	$ 96,607	Initiated and completed synthesis on six compounds from the AML program and initiated confirmatory preclinical *in vitro* tests in the fourth quarter.
2013	67,862	Completed *in vitro* tests and a detailed analysis of the preclinical data from the experiments initiated in 2012. Three compounds were active in multiple leukemia cell lines including human cell lines with the FLT3 mutant kinase; the most frequent molecular mutation in AML. These three were being moved forward into testing of animal models of human AML in the fourth quarter.
2014	30,121	Initiated *in vivo* testing with the first step being the determination of the oral maximum tolerated dose ("MTD"). Initial test results in the year led to a project to improve the formulation of the compound completed near the year end. The *in vivo* study will be repeated in an animal model of FLT3 mutant human AML using MV4-11 tumor cells. All three compounds will be tested at various doses with the goal of selecting a lead and backup compound for continued development towards the clinic and commercial out-licensing.
	$194,590	

AML is the most common type of acute leukemia with 12,950 new cases and 9,050 deaths occurring each year in the United States alone. The size of this patient population makes acute leukemia a potentially good candidate for obtaining an Orphan Drug Designation in the U.S. as the Company did for COTI-2 in ovarian cancer. According to the World Health Organization, there are approximately 250,000 new cases of leukemia annually worldwide. AML accounts for 43% of these cases. The global AML therapeutics market was valued at $204m in 2010. It is expected to grow to $329m by 2016. Like many other cancers, AML is the result of multiple gene mutations that affect multiple cell signaling kinase pathways. With few exceptions, traditional therapies targeting a single abnormal kinase have produced disappointing long-term results.

C. Other Compound Programs

The Company has the capability to generate numerous drug discovery projects using its platform technology. During the three-year fiscal period, the Company was limited in its ability to move such projects forward due to a lack of financial resources. An example of one of these projects is the

Company's HIV integrase program that has not moved forward since early fiscal 2012 as highlighted below.

On May 5, 2011, the Company announced that its agreement had concluded with its major pharmaceutical Partner because the Partner was suspending all HIV programs that were not in an advanced stage in the clinic. COTI believes the program should continue based upon the positive results from the first phase of the program. These results included: a novel HIV integrase compound unlike the diketo acid type moiety approach of current therapy in use or in development; an entirely new binding mode that may be advantageous for patients who are resistant to the current class of HIV integrase inhibitors; interaction with the active site of the viral enzyme; and initial confirmatory *in vitro* testing demonstrating good inhibitory activity in a biochemical HIV integrase assay at nanomolar concentrations. Further development of this program was put on hold pending identification of a new pharmaceutical partner and the necessary internal resources to continue.

D. CHEMSAS® Applications

The Company has identified a number of additional ways to generate monetary value for its shareholders from the CHEMSAS® platform. These include:

- A web based portal approach wherein customers can access specific test predictions from the suite of testing predictions available in CHEMSAS® to provide guidance with respect to their specific compound and scientific interest; and,
- CHEMFirm a report based product that provides a customer with predictive scores across a range of core tests along with an interpretation of the scores to highlight issues and recommended action.

The latter product has had substantial internal development completed including alpha testing of the product with various potential customers of the product such as investment banks, and pharmaceutical and biotech companies. Using initial feedback, the CHEMFirm product has been refined to address improvements. A preliminary business plan for launching the product was completed late in fiscal 2014 with a goal to position the product for launch once refinements are made to the plan and funding is available to execute on the plan.

E. New Technologies

During the past three years, the Company also commenced development of a new technology based upon the substantial database of knowledge gathered in its oncology drug discovery projects. The project, currently referred to as Rosalind, is targeted to provide personalized oncology drug treatment recommendations to physicians and patients based on the genetic profile of each individual patient's specific cancer. This represents a real life application of the life sciences concept of "personalized medicine". A working model of Rosalind has been developed and a provisional patent was filed for the technology in December 2012. The next steps include:

- Completion of initial proof of concept validation with oncology practitioners with a limited number of patients;
- Identification and engagement of collaborative development partners;
- Development of a large scale validation study; and,
- Development of a business case to bring the technology to market.

The Company plans to seek government support and research partners in moving the project through clinical validation. The timing of these activities will be limited by available resources: financial, human, and time.

3.1.3 Capital Financing

To fund operations, the Company completed six equity offerings and one debenture offering on a non-brokered private placement basis with accredited investors during the past three fiscal years. A history of these transactions is summarized in Table 3.

Table 3: Three Year History of Capital Financing

Fiscal Year	Description	Gross Proceeds	Net Cash Proceeds
2012	Equity private placement [(1)]	$ 1,800,000	$ 1,640,721
2013	Equity private placement [(2)]	504,736	442,080
2014	Equity private placement [(3)]	529,907	495,400
	Equity private placement [(4)]	1,224,976	1,151,118
	Equity private placement [(5)]	100,000	90,525
	Debenture private placement [(6)]	400,000	364,085
	Equity private placement [(7)]	537,000	476,383
	Total	2,791,883	2,577,511
	Grand total	$ 5,096,619	$4,660,312

Notes:

(1) In March and April 2012, the Company completed an equity private placement in three tranches. Under the private placement, the Company issued 11,250,000 units consisting of one common share and one common share purchase warrant at $0.16 per unit for gross proceeds of $1,800,000. Each common share purchase warrant was exercisable into one common share at a price of $0.30 for 18 months following the closing date of each tranche. These warrants would have expired in September and October 2013 but were amended before expiry as set out in section 7.3 Warrants to Purchase Common Shares. The compensation warrants were exercisable into one additional common share at a price of $0.30 for 18 months following the closing date of each tranche. Compensation warrants cannot be amended under TSXV regulations and expired.

(2) In January 2013, the Company completed an equity private placement and issued 3,605,258 units at a price of $0.14 per unit for gross proceeds of approximately $504,736. Each unit consisted of one common share and one common share purchase warrant with each warrant exercisable into one

additional common share at a price of $0.26 for 18 months following the closing date of each tranche. In addition, 232,652 compensation warrants exercisable for one additional common share at a price of $0.20 were issued. The expiry date for the common share purchase warrants and the compensation warrants is July 29, 2014.

(3) In May and June 2013, the Company completed an equity private placement in two tranches. Under the private placement, the Company issued 4,415,895 units consisting of one common share and one common share purchase warrant at $0.12 per unit for gross proceeds of approximately $529,907. Each common share purchase warrant is exercisable into one common share at a price of $0.26 for 18 months following the closing date of each tranche. The Company also issued 88,213 compensation warrants exercisable into one common share at a price of $0.20 for 18 months following the closing date of each tranche. The expiry dates for the common share purchase warrants and the compensation warrants from each tranche are November 30 and December 20, 2014 respectively.

(4) In August 2013, the Company completed an equity private placement in three tranches. Under the private placement, the Company issued 10,208,132 units consisting of one common share and one common share purchase warrant at a price of $0.12 per unit for gross proceeds of approximately $1,224,976. Each common share purchase warrant is exercisable for one common share at a price of $0.26 per share for a period of 18 months from the closing date of each tranche. The Company also issued 267,130 compensation warrants exercisable into one common share of the Corporation for a period of 18 months following the closing date of each tranche at an exercise price of $0.20 per share. The expiry dates for the common share purchase warrants and the compensation warrants from each tranche are February 15, February 27, and March 1, 2015, respectively.

(5) In February 2014, the Company completed an equity private placement and issued 769,230 units at a price of $0.13 per unit for total gross proceeds of approximately $100,000. Each unit consisted of one common share and one common share purchase warrant with each warrant exercisable into one additional common share of the Corporation at an exercise price of $0.26 per share expiring five years from the date of issue on February 4, 2019.

(6) In February 2014, the Company completed an arm's length non-brokered private placement of a non-convertible debenture ("Debenture") for $400,000. The Debenture has a one-year term from the date of issuance and bears interest at a rate of 10% with interest only payable on a monthly basis. In addition to the interest cost of the Debenture, the Company issued 1,250,000 common share purchase warrants ("Debenture Warrants") with an exercise price of $0.20 and a one-year term with vesting occurring immediately upon issuance of the Debenture. The Company has the option to repay the Debenture before its maturity date for a redemption fee of $40,000. The lender has the option to apply the redemption fee to a participation in any equity financing undertaken by the Company in calendar 2014 related to the repayment of the Debenture on the same terms and conditions as that particular financing.

(7) In April 2014, the Company completed an equity private placement and issued 3,356,250 units consisting of one common share and one common share purchase warrant at $0.16 per unit for gross proceeds of $537,000. Each common share purchase warrant is exercisable for one common share at an exercise price of $0.28 for 24 months following the closing date. The Company also issued 242,000 compensation warrants exercisable into one common share at a price of $0.22 for 24 months following the closing date. The expiry date for the common share purchase warrants and the compensation warrants is April 29, 2016.

3.1.4 Board of Directors

During the three year fiscal period of 2012-2014, the Company made two changes of note affecting its governance and leadership.

First, in early fiscal 2013 the Company looked to fill the one open directorship position on the Board of Directors ("Board") by adding an individual with experience and contacts from a career in a major pharmaceutical company. Accordingly, in July 2012, the Company appointed Mr. Thomas Wellner to the Board. At the time, Mr. Wellner was the President and CEO of CML Healthcare Inc. (TSX: CLC), an Ontario based publicly-traded provider of laboratory testing and medical imaging services. Mr. Wellner brought a broad range of leadership experience gained from 20 years with Eli Lilly & Co. in senior roles in Canada, China, the US, Latin America, and the United Kingdom that included being General Manager of Lilly Deutschland GmbH from 2004-2007.

Secondly, in December 2013 the Company looked to reduce its administrative cost and streamline its governance by reducing the size of its Board at the 2013 Annual General and Special Meeting of Shareholders ("AGM"). At that time, the Board was reduced from eight directors to its current complement of five directors. The current Board is made up of four returning directors, Mr. John Drake, Dr. Wayne Danter, Mr. Douglas Alexander, and Mr. Bruno Maruzzo, and one new director, Mr. Dave Sanderson. A summary biography of each of the current directors appears in Section 9 Directors and Officers.

3.2 Significant Acquisitions

The Company made no business acquisitions in the fiscal years ended April 30, 2012-2014.

3.3 Recent Developments

In February 2014, the Company announced the signing of a non-binding letter of intent ("LOI") to form a joint venture with Portage Biotech Inc. ("Portage"), to fund and direct the Phase 1 development of the Company's clinical oncology candidate, COTI-2. Portage is a British Virgin Island incorporated public company, listed and traded on the Canadian Securities Exchange (PTB.U), and on NASDAQ OTC (PTGEF). The joint venture formation and investment would bring substantial technical and industry expertise to the development of COTI-2 and enable the Company to move the compound into clinical trials and provide the human data validation of primary interest to many potential licensing partners.

Under the terms of the LOI, the Company and Portage have agreed to form a joint venture company ("JV Co") wherein the Company will grant an exclusive limited license for COTI-2 to JV Co for the development of COTI-2 from the point it commences the final pre-clinical 28-day two-species toxicity studies, through IND preparation and filing, a Phase 1 clinical trial and all related or ensuing development as determined to be appropriate by JV Co. Portage will invest $5.0 million USD in JV Co and these funds will be used to fund the mutually agreed upon development plan for COTI-2. JV Co will be co-owned 50/50 by COTI and Portage.

Upon successful completion of the remaining due diligence, Portage and COTI may enter into negotiations of a definitive plan and agreement of joint venture (the "JV Agreement") and an exclusive limited license agreement in respect of COTI-2. The JV Agreement will be in form and substance mutually acceptable to the Company and Portage, acting reasonably, and will contain, among other things, representations, warranties, terms, conditions and indemnities of the respective parties customary for transactions of this nature. Portage had not completed their due diligence at the April 30, 2014 year end as the Company was asked to conduct an additional in vivo test related to specific cell lines and outcomes. This testing commenced prior to the year end with results expected in July 2014.

3.4 Future Plans

The Company's operational objectives for fiscal 2015 are as follows:

1) COTI-2

To complete the 28-day two-species toxicity experiments commenced in February 2014 in the first quarter of fiscal 2015.

To prepare the IND submission package to the FDA by the end of September 2014 with major activities as follows:

- IND submission writing
- Phase 1 test protocol preparation
- Investigator's brochure preparation
- Pre-filing FDA meeting
- Electronic submission of IND

To obtain Orphan Drug designation for COTI-2 in the treatment of ovarian cancer with a target for this in the first quarter of fiscal 2015.

To commence the Phase 1 clinical trial of COTI-2 in the second half of the fiscal year. The estimated cost for this trial is approximately $3.5m USD.

To move COTI-2 licensing discussions forward to a licensing agreement based upon achieving milestones such as the toxicity test outcomes, IND approval, and Phase 1 clinical trial initiation.

2) R&D Collaborations

To move two of the collaborations (Delmar and Western University) toward licensing events in the latter half of the fiscal year.

To determine next steps with the major Pharma collaboration and complete the second phase of the project to a position for a license event or engage new potential licensees for the program should the major Pharma not wish to proceed.

To launch at least one co-development initiative undertaken on a fee for service model for customer driven targets using CHEMSAS®.

3) AML Program

To conduct *in vivo* efficacy and MTD studies to enable the selection of the final compound for moving forward in further preclinical testing.

To initiate qualification discussions with the list of prospective licensees with the objective of positioning for a license or co-development of the program as the preclinical scientific data package builds.

4) New revenue initiatives

To complete the business and marketing plan and hire staff to launch the CHEMFirm product offering.

To launch the CHEMFirm product service.

5) Financing

In order to realize its objectives, the Company will require additional funding. Funding will also be needed to repay a $400,000 debenture outstanding at the April 30, 2014 year-end that is due in February 2015. Funding plans include:

- to complete the second tranche of the financing underway at the April 30, 2014 year-end with a goal of raising an additional $500,000;
- a raise of a minimum of $5.0m CAD through private placement equity financings in the United States and Canada in the first half of fiscal 2015; and,
- obtaining an OTCQB listing in the United States to support U.S. investor relations efforts with a listing target in the first quarter of fiscal 2015.

Additional financings will be required to fund operations beyond fiscal 2015 but the Company plans are to do so once milestones in the first six months of fiscal 2015 are completed so that such financings could occur at a higher share valuation inflection point. Additional funding sources may include:

- the exercise of options/warrants that could occur with an increase in the stock price above current exercise prices;
- government funding;
- co-development project funding from interested partners; and,
- a licensing agreement for COTI-2, or one of the collaboration assets.

4.0 DESCRIPTION OF BUSINESS

4.1 General Description of the Business

COTI is a leading-edge bioinformatics company specializing in accelerating the discovery and development of small molecules – dramatically reducing the time and cost to bring new drugs to market. COTI's proprietary artificial intelligence system, CHEMSAS®, utilizes a series of predictive computer models to identify compounds with a high probability of being successfully developed from disease specific drug discovery through chemical optimization, preclinical testing and into the clinic. These compounds are targeted at a variety of diseases, particularly those for which current treatments are either lacking or ineffective.

4.2 Business Value Proposition

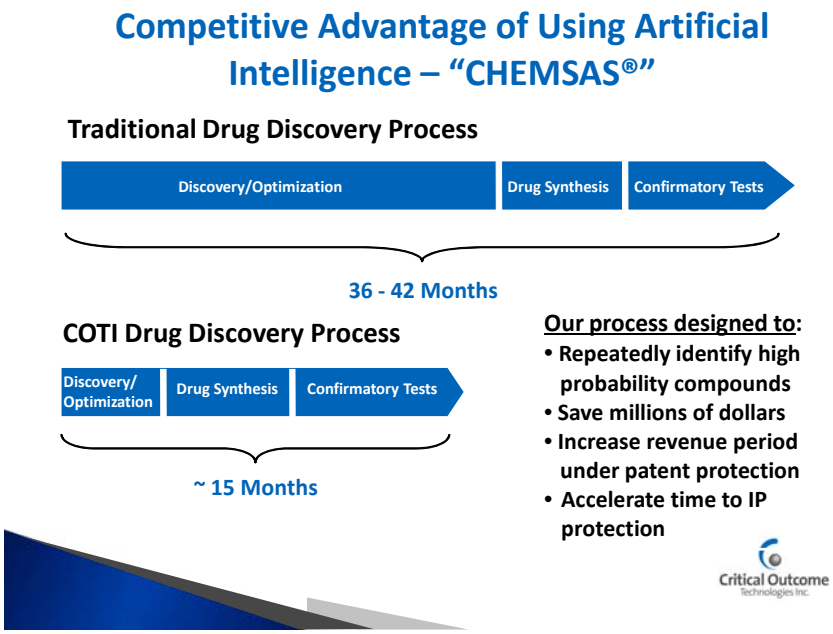
In the 2009 study by the Tufts Center for the Study of Drug Development, it was noted that the current drug development process takes 10-15 years, costs approximately $1 billion USD and forces companies to evaluate more than 5,000 potential drugs for each successful FDA new drug approval. Since that time, various sources, such as Recap.com, have reported that this cost has grown to over $1.3 billion USD. One of the major factors that causes development to be so expensive is that in traditional drug discovery and preclinical drug development, the evaluation of compounds relies on a costly cycle of drug design and synthesis; followed by drug testing; followed by optimization; followed by re-synthesis and testing of each compound as it is optimized. This repetitive wet-lab cycle consumes significant resources of time, labour, material, and facilities and as a result is correspondingly expensive and inefficient. While the industry has made strides in the use of computer based technologies to improve its R&D efficiencies during the past ten years, this has not translated into dramatic improvements in success in the clinic and for patients as evidenced by the number of new medical entities approved by the FDA in the past few years (2011 – 30, 2012 – 39, 2013 – 27). COTI has developed a better way to get safe and effective new therapies to patients in a more cost effective, efficient, and timely manner.

COTI's approach is disease specific drug discovery, optimization and preclinical development using a proprietary process that combines a series of computer models based on proprietary algorithms, statistical analysis tools, "Artificial Intelligence" software tools available off the shelf, and input from human medicinal chemists at the optimization stage of the process. Figure 1 highlights the traditional drug discovery process and timeline and illustrates that COTI's CHEMSAS® process is designed to reduce the discovery optimization segment and thereby reduce the timeline of identifying lead compound candidates at the end of the confirmatory test stage to approximately 15-18 months from the current 36-42 month timeline.

In addition to the benefits of time and cost savings and an improved period for revenue under patent protection, CHEMSAS® focuses on improving the probability of success for those compounds taken into the clinic. That is, if one can take fewer compounds into the clinic with the attendant benefits noted but have improved the likelihood of success in the clinic then the profitability impact and benefit to patients can be dramatic. As a simple example, if a life science investment fund invests in ten compounds and the typical model is one significant success and one total failure with varying outcomes for the other

eight compounds, then improving these outcomes by even one significant success would have a dramatic effect on the return of this portfolio. What if the success rate could be improved to 50%?

Figure 1: Comparison of the Discovery/Optimization Timeline



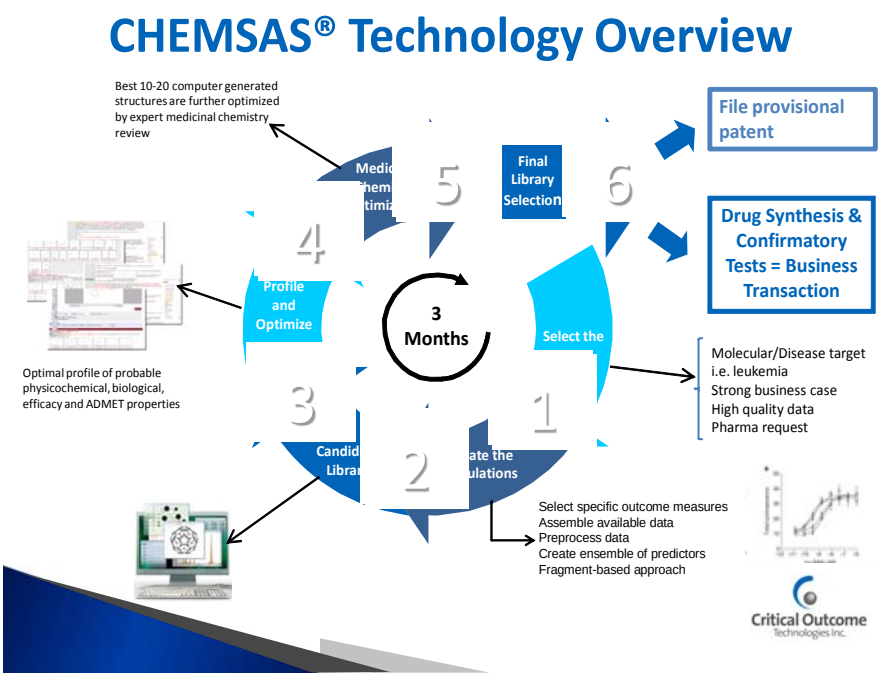
4.3 CHEMSAS® Technology

CHEMSAS® is an acronym for "computerized hybrid expert molecular structure activity screening". The name is derived from the basic underlying principal that guided the development of the technology: that molecular structure determines biological activity. Using this basic principle, the Company developed a proprietary process framework and applied a significant number of computer based software technologies and proprietary algorithms to create a multi-staged predictive process. CHEMSAS® is thus a platform technology based upon a hybrid of computational technologies and proprietary algorithms that provides an accurate prediction of biological activity from the molecular structure.

CHEMSAS® was designed and implemented as a small molecule drug discovery engine that is adaptable to a wide range of therapeutic targets and diseases. In addition to increasing the speed of identifying potential lead drug candidates, CHEMSAS® is expected to identify drug candidates with an increased probability of clinical success through its rigorous computational predictive capabilities. The process can model and optimize specific desirable biological activities of molecules such as (i) efficacy against specific targets, (ii) pharmacokinetic properties (i.e., absorption, distribution, metabolism, excretion (ADME)), (iii) Cytochrome P450 metabolic interactions, (iv) acute *in vivo* intra-peritoneal and oral toxicity, (v) P-glycoprotein transport interactions, and (vi) potential mutagenicity. The output of the system is a detailed predictive profile of a potential drug candidate at the discovery stage of development.

Figure 2 sets out a high-level overview of the basic steps in the CHEMSAS® process.

Figure 2: CHEMSAS® Technology Overview



To ensure that CHEMSAS® remains an innovative technology, new and/or modified prediction models are constantly updated and refined. New molecules are continuously added to the CHEMSAS® database and new computational versions of tests and assays are being developed in order to make the CHEMSAS® predictive capabilities as comprehensive as possible in allowing COTI to find molecules for new and important therapeutic targets that can be developed and sold or licensed.

4.3.1 *Benefits of CHEMSAS®*

COTI's approach to drug discovery has the following benefits:

(a) allows the Company to discover and develop potential new therapies faster, cheaper, and more efficiently by doing most of the discovery work in computer simulations providing decreased cost and increased speed of outcome compared to approaches relying on traditional or quasi-traditional methods.

(b) attractive to pharmaceutical and biotechnology partners because of:

- a faster time to market – lead compounds can complete the preclinical work and enter into clinical trials two or more years faster than the traditional approach;
- an increase in potential profit by reducing the cost of lead compound identification for prospective licensees compared to more expensive and time consuming internal drug discovery processes;

- an increase in the potential revenue-generating period under patent protection – faster time to market allows a greater period for revenue generation under patent protection of potentially more than two years; and,
- a higher confidence in a positive testing outcome both preclinical and clinical, resulting from the optimized selectivity for the therapeutic target and acceptable drug-like properties characterizing the compounds identified to move forward.

4.3.2 *Proof of Concept*

The CHEMSAS® process has undergone extensive internal and external multi-stage scientific validation throughout its evolution. In 1999, the process was limited to predicting *in vitro* efficacy against ten different types of cancer. Since then, it has evolved into a sophisticated broad based discovery engine targeting potential new drugs for preclinical development in a wide range of diseases using a broad base of scientific factors. The development of individual computerized simulations involved extensive internal validation at each stage in the development process. The earliest external scientific validation was carried out in 2003 on two COTI compounds identified as potential treatments for leukemia at the research laboratories of the London Regional Cancer Program in London, ON, by the Program's Director, Dr. James Koropatnick, an internationally recognized expert in cancer biology. The overall predictive accuracy of these early efficacy models was greater than 90%. A second external and blinded validation was carried out on ten previously unseen test molecules provided by Dr. Koropatnick with the resulting overall computer predictions of both *in vitro* efficacy and acute animal toxicity being accurate more than 80% of the time. All predictive models have undergone considerable evolution and development since those early experiments. Today, an optimal overall predictive profile is based upon 64 simulations and 264 variable outcomes that help to identify potentially successful drugs.

Further proof of concept studies involved conducting various successful projects on a co-development or collaborative basis over the years, such as a one done for Merck Serono in 2008-2010 for a cancer target and another for a subsidiary of a major international Pharma for an HIV target in 2009-2010. These early projects led to the monetization strategy of taking a lead compound forward as discovered by COTI for its own account and simultaneously doing collaborations for other parties in a shared risk model on a negotiated compensation basis as highlighted in 3.1.1 (B) Three Year History – Collaborations for the collaborations currently in progress.

4.4 Business Application

COTI's vision is to be a reliable and cost-effective provider of portfolios of highly optimized compounds targeted against common and important diseases that will help drug development customers fill their pipelines with drug candidates having an increased probability for success in clinical trials and ultimately becoming drug therapies. Using CHEMSAS®, the Company is developing optimized novel, small molecules as potential drug candidates for specific therapeutic targets in diseases that have high morbidity and mortality rates and currently have either poor or no effective therapies. Examples of these include various cancers, HIV integrase, multiple sclerosis, Alzheimer's disease and most recently MRSA. Following synthesis and completion of a standard group of confirmatory *in vitro* and *in vivo*

efficacy and toxicity tests, the Company's business model is to license or co-develop these molecules with interested pharmaceutical, biotechnology, and drug development partners for further development and human trials.

In addition to licensing its own targeted programs, the Company may also take particularly promising individual molecules forward through various preclinical tests and Phase 1 clinical trials. This activity involves additional preclinical testing and the associated costs with making an IND filing in the United States or a new drug submission ("NDS") in Canada and a plan for human Phase 1 clinical studies. These compounds are then available for licensing or co-development with a pharmaceutical partner. In this regard, the Company continued to prepare for a Phase 1 clinical trial submission based on the positive preclinical results achieved from COTI-2 against a number of cancer indications during fiscal years 2012-2014 as highlighted in 3.1.2 (A) Three Year History – COTI-2. COTI-2 is a novel anticancer drug candidate that has proven to be effective in animal models of many human cancers with mutations of the p53 gene. This is important because p53 gene mutations occur in more than 50% of all human cancers. Testing initiatives and planning currently target an IND filing in September 2014.

The Company is also pursuing discovery stage collaborations with multinational pharmaceutical and biotechnology organizations in identifying lead drug candidates for targets of commercial interest to these prospective partners. This collaboration approach leverages the capabilities of CHEMSAS® to provide an additional revenue stream that complements the Company's concurrent development of its own novel drug candidates. The Company's preferred commercialization strategy for collaborations involves an upfront fee and a shared risk/reward revenue model delivered through a series of milestone payments based on preclinical and clinical test results. Management believes this service offering provides prospective customers with an efficient and effective approach for identifying discovery stage compounds while enhancing value to the Company and its shareholders from the underlying CHEMSAS® technology. Prior to 2012, the Company participated in two collaborations; one a cancer target and the other an HIV target wherein the Company gained experience and knowledge in dealing with collaborators and in refining its process for executing on such engagements. Building on these initial engagements, the Company entered into three collaborations during fiscal 2013, as highlighted in the Three Year History, and continues to discuss opportunities for further collaborations.

4.5 Revenue Model – Licensing

The Company anticipates generating revenues through licensing its compounds using a traditional licensing revenue model consistent with that of other biotech and pharmaceutical companies. The typical licensing agreement consists of the following four components: an upfront cash payment upon signing the agreement, development milestones as the compound advances through additional preclinical and clinical testing to FDA approval, commercial milestones on achieving specific sales levels as a drug, and finally, global sales royalties.

COTI's initial business model was to license its compounds following the completion of discovery and a core group of confirmatory lab tests. The Company is currently conducting these core tests plus additional preclinical testing including the testing necessary to take a compound through to an IND filing. This will validate CHEMSAS® and provide confidence to licensees of the value of the molecules

developed using CHEMSAS®. Accordingly, the value of any licensing agreement is a function of many factors such as the compounds impact on the disease target, the novel nature of the compound, the strength of the patent protection, the number of therapeutic indications, and market size, among other factors. Generally, with all other factors being consistent, the value of a licensing agreement increases in an exponential step-wise fashion as one moves a compound with continuing success along the development path toward and through FDA approval. This increase in value at each step reflects the decreasing risk that a compound will fail as it passes each hurdle in the development cycle. This increase is typically spread across all the revenue components of the licensing agreement; that is the upfront payment, developmental milestones, commercial milestones, and royalties are all adjusted upward in value the later the compound is licensed in the development cycle.

Typically, the upfront payment in cash is only a small part of the overall deal and the size of this payment varies based upon the development stage of the compound; with preclinical drug discovery candidates' upfront payments being less than Phase 1 ready candidates, Phase 1 candidates less than Phase 2 candidates and so on assuming all factors being equal. As noted above, the terms of the licensing agreement and consequently the upfront payment can be affected by many factors such as the novel nature of the compound (i.e., first-in-class), patent protection, disease impact, market indications, market size, market share potential, and competitive treatments.

Also, as noted under the heading 4.4 Business Application, the Company is developing drug candidates for specific therapeutic targets in diseases that have high morbidity and mortality rates and currently have either poor or no effective therapies. The intent of this strategy is directly aimed at those markets with a strong potential for achieving financially rewarding licensing agreements and meeting a specific customer/patient need.

The above discussion is intended to provide a general outline only of how licensing agreements typically work and some of the many factors that could influence any licensing agreement that COTI is able to achieve.

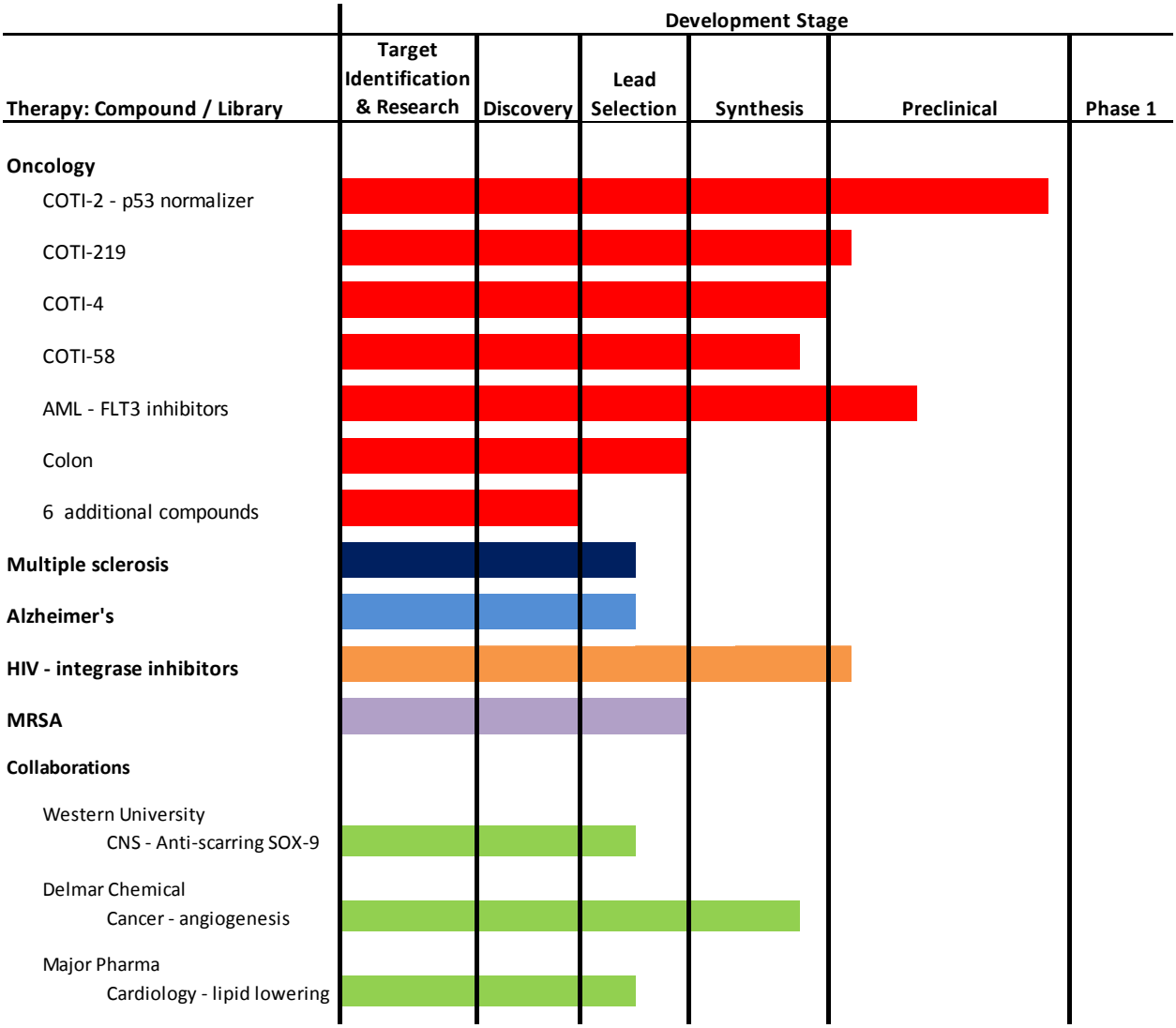
Revenues from collaboration projects are expected to follow a similar licensing approach with the exception of the upfront payment. The payment for the discovery and confirmatory test phase of such initiatives to date has been negotiated on a project-by-project basis. The uniqueness of each project, partner preferences, and the Company's need to develop a track record of success for this new and unique application are major factors for this approach. First, if the disease target is a new project directed by the collaborating partner then COTI seeks an upfront service fee to cover the cost of developing the target-specific additions to CHEMSAS® and applying the CHEMSAS® process in identifying lead compounds. Negotiated project milestones are used typically to trigger payments. Second, if the collaboration is a compound from COTI's own portfolio then cost sharing or development cost funding by the partner to a specific milestone has been the approach. Licensing revenues similar in nature to those for COTI's own compounds are anticipated under the collaboration approach should the partner decide to proceed following the initial discovery and confirmatory phase but at lower amounts depending upon the negotiated risk sharing formula in such agreements.

4.6 Product Development

Using its proprietary CHEMSAS® platform, COTI has discovered and developed highly optimized portfolios of small molecule drug candidates against a variety of different cell signalling and disease targets. COTI has concentrated on developing drug candidates for the treatment of various cancers, HIV, multiple sclerosis, Alzheimer's disease, and MRSA. Cancer types specifically targeted include acute myelogenous leukemia, small cell lung, ovarian, endometrial, pancreatic, brain, breast, and colorectal. The Company sees this approach to cancer therapy starting to change from labelling treatments by organ tissue to that of the gene mutation targeted. For example, COTI-2 targets p53 mutations found in more than 50% of all cancers regardless of organ specificity.

The Company's compounds in various stages of development at April 30, 2014 appear in Figure 3.

Figure 3: Product Pipeline and Stage of Development



The ability to develop this pipeline of drug candidates is a function of resources both human and financial. The Company's development focus is to advance COTI-2 through to a Phase 1 clinical trial with licensing efforts ongoing as COTI-2's potential continues to unfold. The granting of patents from the United States Patent and Trademark Office ("USPTO") during the fiscal years 2012-2014 as set out in section 4.9 Intellectual Property, Table 6, supports this development.

The Company's current secondary focus is split among its internal AML project, its external collaborations, and new potential collaborations such as MRSA. The AML project has patents granted in Canada, the United States, and Europe, and government funding to assist with this project was available until the end of fiscal 2014, which enabled this project to be the next most advanced in development. The collaborations are closer to revenue events than most of the Company's own compounds and the cost sharing approach provides an investment return advantage to COTI's share of costs incurred in such projects.

4.7 Research and Development

The Company is continually working on improving its CHEMSAS® platform by adding new simulations, descriptors, and tests, as well as enhancing and modifying the latest working version.

The Company has a number of drug compounds and programs whose further development remains on hold or moves modestly forward based upon available funding and internal labour; however, there is a continuous process of responding to inquiries on possible collaborative work.

As CHEMSAS® is a platform technology, the Company is currently evaluating alternative fee for service applications of the technology to meet the needs of a variety of end users for profiling prospective compounds in the discovery stage or at later stages of preclinical development to assist in the decision making process of these users. The basis of such offerings is to address the scientific need to identify potential problems with drug candidates as early as possible and thus save time, resources, and money. For example, one application is a fee-based web portal offering to access CHEMSAS® for a predictive outcome on a single test outcome or a selection of tests of interest to the user. A second application is a product called CHEMFirm, which is a service that provides a detailed CHEMSAS® profile of a compound for a core group of outcomes considered the most important in evaluating a compound. This profile is provided in the form of a report and the predictive outcomes are compared against a standard for each predictive category with an interpretation of the outcomes and recommendations for action based upon these outcomes. These offerings are currently in the business case evaluation and product prototype phase.

Another technology example called Rosalind, uses the Company's knowledge base built through drug compound work in oncology with CHEMSAS®. Rosalind is a computer simulation of a cancer cell designed to run on a tablet to assist clinicians in personalizing optimal chemotherapy by applying known approved drug treatments for cancer against the gene mutation profile of a patient's cancer. Rosalind is based on patent pending and long validated mathematical principles. Initial validation using human cancer cell lines with known gene mutations and a few xenografts has been positive. There is an enormous unmet medical need to take gene mutation information and turn it into actionable outcomes

for the patient. COTI is currently identifying partners to continue the validation process, realize the potential for individualized cancer care, and develop the commercial potential of Rosalind. Rosalind could also be a powerful tool for assigning patients to the appropriate clinical trial. The cancer gene mutation profiling market is projected to be $35 billion USD by 2018 and the conversion of the profiling outcomes into actionable decision making through a product like Rosalind will be an important part of this market potential.

4.8 Competitive Conditions

CHEMSAS® Platform

COTI has developed a unique, novel proprietary process to discover drug candidates predicted to have a higher probability of success. For the purposes of finding potential lead compounds for a specific cell level target in a specific therapeutic area there can be many sources of competition. What differentiates these competitors is the scientific capability in their people and technology or process used to arrive at such compounds. Competitors include pharmaceutical companies, biotech companies, drug discovery companies, university research labs, and individual scientists. It is clear that pharmaceutical companies have R&D departments that identify lead compounds in a way unique to each company. However, drug discovery and development is a complex, challenging, and expensive activity. This is evidenced by the high cost to bring a successful compound to market of greater than $1.3 billion USD as noted under 4.2 Business Value Proposition. Despite competitive processes to find drug therapies, the ultimate goal is to find a successful compound. COTI believes its computational process is a more cost effective and higher success rate approach based upon predictive probabilities. As noted under 4.9 Intellectual Property, the Company has chosen not to patent its proprietary process but rather maintain it as a trade secret. The Company firmly believes that CHEMSAS® represents a competitive advantage and that patenting the process carries a very high risk of providing a detailed roadmap for other parties to follow in engineering a competitive process or in re-engineering/enhancing an existing process. However, the Company does patent the output/products of the platform to protect the inherent value of this intellectual property, which will be licensed for the intended therapeutic targets.

Drug Candidates

In the actual therapeutic space where the products of the CHEMSAS® technology are to be used, there can be treatments in use and in development. COTI's compounds must compete with those in the particular therapy areas COTI has chosen. To enhance its opportunity for success, COTI is focused on areas of unmet medical need; that is, in a therapeutic area where current treatments are not particularly effective. This strategy is further supported in the evaluation of the predictive outcomes for COTI compounds in confirmatory testing. COTI looks to complete the confirmatory tests (efficacy, toxicity, etc.) where possible using human cell lines and compared to current standard therapies used for the disease target. The intent is only to take forward a compound that is at least as good or better in its pharmacokinetic profile than a current therapy. This approach was highlighted under 3.1.2 Three Year History – Product Development above, where animal xenografts conducted in particular human cell lines against specific oncology targets were compared against current first line therapies for these

targets. Finally, the Company only takes compounds forward for its own account from the CHEMSAS® system that are able to achieve the highest level of patent protection, thus ensuring the compounds are unique and novel within the therapeutic patent space and consequently of the most appeal to licensees.

4.9 Intellectual Property

The pharmaceutical industry attaches major importance to the value of the intellectual property created from the R&D activities of its industry participants. This value is typically reflected in the portfolio of patents obtained to provide protection for the new technologies, products, and processes developed. COTI's success therefore depends in part on its ability to obtain patents or rights thereto in protecting its commercial interests in the R&D products it has developed, and in carrying on its activities without infringing the rights of third parties.

a) Patent Portfolio

COTI has patents for drug compounds, processes for drug manufacturing, and new therapeutic uses for drugs. For drug compounds, the principal category for patenting is a "composition of matter" patent. This can be differentiated from the other three principal categories of things that may be patented being a process (also termed a method), a machine, and an article of manufacture. Use patents relate to the therapeutic indication that the drug will be prescribed for and can be obtained whenever the drug has not been previously used to treat a particular disease. Use patents can be granted for known drug compounds or new drug compounds. In order for physicians to prescribe the drug for the indication covered by the use patent, the company marketing the drug requires permission from the patent holder, typically in the form of a license with agreed upon commercial terms. A summary of COTI's patents, both compounds and processes, granted or pending as of April 30, 2014 is set out in Table 4.

Table 4: Patents Granted or Pending

	Status	Number
1	Granted	13
2	Pending	14
		27

i. Processes

The Company has chosen not to patent its proprietary drug discovery platform, CHEMSAS®, but rather has kept it a trade secret. This business decision serves to protect the process, as disclosure in a patent application would provide other companies with a significant opportunity to improve their own software based modeling systems used for internal development or create a competing "software as a service" system based upon insights gleaned from such a COTI patent.

The Company has one provisional patent filed under the title of a fuzzy cognitive mapping system which is a computer software system designed to simulate a human cell. This programmable cell model is being developed as a predictive tool to recommend cancer therapy choices for oncologists, and ultimately their patients, based upon the genetic profile of a patient's tumour and current available cancer drug therapies. The recommendations are based upon the premise that tumour regression is achieved by returning the cell to proper cell signalling stasis from its current mutated state.

ii. Compounds

The Company seeks to patent the compounds (drug candidates) generated from CHEMSAS® for the selected specific therapeutic targets at the most desirable patent level, being "composition of matter" and in the jurisdictions deemed to provide the greatest financial benefit recognizing that the financial constraints of the Company preclude the ability to blanket all jurisdictions. The Company also seeks to ensure that the compounds patented are unique and novel for the disease targets by surveying the patent space around the therapy targets to identify areas of open patent space that would reduce the likelihood of patent issues or challenges at the time of, and subsequent to, filing. COTI's composition of matter patents typically include the following intellectual property: the therapy target, the relevant molecule scaffolds, the synthesis formula(s) and the supporting test data related to the therapy target and the associated activity claims.

There are currently 13 patents granted and 13 patents pending on COTI's compounds with further details as set out in Table 5.

Table 5: Summary of Compound Patents' Status by Product/Therapy Area

	Product/Product Class	**Therapy Area**	**Granted**	**Pending**	**Total**
1	COTI-2	Solid tumour cancers impacted by p53 protein mutations and cancers over expressing the AKT protein complex.	5	7	12
2	COTI-4	Various cancers with a small cell lung cancer focus	1	3	4
3	AML	Protein tyrosine kinase inhibitors targeting FLT3 mutations	7	-	7
4	HIV	Compounds and methods for the treatment of HIV focused on integrase inhibition	-	3	3
			13	13	26

The Company's most advanced compound in development is COTI-2. An application for IND status leading to human clinical trials is currently being prepared for submission to the FDA in 2014. Details of the patents granted and pending associated with this compound are summarized in Table 6 with those granted highlighted.

Table 6: COTI-2 Patents by Patent Status

	Compound ID	Patent Description	Country	Patent Number	Filing Date	Status
1	COTI-2 /COTI-219	Composition and Method for Treatment of Cancer	Canada	CA2673683	Jan 11/08	Pending
2	COTI-2/ COTI-219	Composition and Method for Treatment of Cancer	U.S.	8034815	Jan 11/08	Granted
3	COTI-2/ COTI-219	Composition and Method for Treatment of Cancer	Europe	EP2121681	Jan 11/07	Pending
4	COTI-2/ COTI-219	Composition and Method for Treatment of Cancer	Japan	2010-515693	Jan 11/07	Pending
5	COTI-2/ COTI-219	Inhibitor Compounds and Cancer Treatment Methods	U.S. (2)	8138191	Jul 17/09	Granted
6	COTI-2/ COTI-219	Compounds and Method for Treatment of Cancer	U.S. (3)	8420643	Dec 2/11	Granted
7	COTI-2/ COTI-219	Inhibitor Compounds and Cancer Treatment Methods	U.S.(4)	8580792	Feb 1/12	Granted
8	COTI-2/ COTI-219	Compounds and Method for Treatment of Cancer	U.S.(5)	8367675	Jul 25/11	Granted
9	COTI-2/ COTI-219	Compounds and Method for Treatment of Cancer	U.S. (6)	13/770,749	Feb 19/13	Pending
10	COTI-2/ COTI-219	Compounds and Method for Treatment of Cancer	U.S. (7)	14/075/597	Nov 8/13	Pending
11	COTI-2/ COTI-219	Thiosemicarbazone Inhibitor Compounds and Cancer Treatment Methods	Canada	2730890	Jul 7/09	Pending
12	COTI-2/ COTI-219	Thiosemicarbazone Inhibitor Compounds and Cancer Treatment Methods	Europe	09797322.6	Jul 7/09	Pending

iii. Jurisdictions

COTI's jurisdictional approach is to seek protection initially in the United States and Canada and other international regions including Europe on a selective basis under a Patent Co-operation Treaty filing. The Company's patent portfolio by region is summarized in Table 7.

Table 7: Patent Portfolio by Region

	Region	Granted	Pending	Total
1	Canada	2	4	6
2	Europe [(a)]	2	4	6
3	United Sates	9	4	13
4	Japan	-	1	1
5	Provisional [(b)]	-	1	1
		13	14	27

Notes:

(a) Selected countries are included in European patenting.

(b) No specific country jurisdictions selected in the provisional patent phase.

b) Trademark Portfolio

The Company believes that it has developed certain processes, which as intellectual property may generate significant tangible value in the future. This tangible value is based directly upon future earnings power. One of these is the Company's proprietary platform technology, which the Company has named CHEMSAS®. CHEMSAS® could become extremely valuable to the extent the Company is able to establish successful commercial validation of the capability of the platform to identify early stage drug discovery candidates with high probability of being successfully developed in the clinic. Accordingly, COTI has obtained trademark protection for CHEMSAS® as the first step in establishing a recognized trademark to be built on such a reputation.

The Company's portfolio of granted registered trademarks is set out in Table 8.

Table 8: List of Trademarks

	Name	Description	Country	Meaning
1	CHEMSAS®	Acronym for the Company's proprietary drug discovery search engine platform	Canada and U.S.	Computerized Hybrid Expert Molecular Structure Activity Screening
2	HAALT®	Acronym for combination oral therapy that results in changing highly lethal cancers into chronic longer term illnesses	Canada	Highly Affective Anti-Neoplastic Longer Term Therapy

4.10 Economic Dependence

The Company does not currently have any customers that could create a situation of substantial dependence upon them in respect to cash flows that support the Company's operations.

COTI has developed a preferred supplier list with several alternative contractors for synthesis and each of the confirmatory *in vitro* and *in vivo* testing services that may be required. The CHEMSAS® process, in addition to proprietary software, also uses off-the-shelf software tools for certain common statistical processes. The Company has identified software vendors offering comparable tool sets in the event that the software tool currently used becomes unavailable from the current vendor of choice. Accordingly, the Company has not created a situation of dependence on any one supplier for the Company's

requirements for third party testing activities. While there is no economic dependence, there is nonetheless, the risk of failure of any supplier to perform under a testing contract that could delay development of a project. Test development of compounds is very much a sequential process with future tests building on the test outcomes achieved as the testing plan unfolds. The impact of such test performance risk would not be substantially different than were such testing conducted in-house.

4.11 Employees

The number of employees on staff at each of the last three fiscal year ends is summarized in Table 9. In addition, the Company uses independent contractors and consultants to support its operations in such areas as human resources, information technology, intellectual property, investor relations and medicinal chemistry rather than hiring employees in these areas, since the current operational size does not justify the fixed costs of having full-time staff for such expertise.

Table 9: Number of Employees at the Fiscal Year End

Year End	Number
2014	6
2013	6
2012	8

4.12 Facilities

The Company does not own any physical facilities but rents 1,600 square feet of commercial office space in the Stiller Centre for Biotechnology Commercialization, a building located at Western University's Research Park in London, ON. This rental arrangement during the last three fiscal years was on a month-to-month basis at a monthly rate of $3,115 and was subject to a 90-day notice period to terminate occupancy by either COTI or the landlord.

This commercial office space is appropriate for the Company's computer laboratory activities as all physical synthesis and preclinical *in vitro* and *in vivo* testing activities are performed by third party service providers. Accordingly, COTI does not need to maintain such traditional capital intensive and specialized wet-lab facilities. The facility is relatively secure with electronic card security both for building entry and floor to floor access.

The facility has a backup generator in the event of power failure ensuring very limited to no downtime and thus maximal protection for the Company's computing processes and ongoing operation. All offices and hallways are sprinkler enabled in the event of fire with a fire hydrant located in front of the building and a fire station less than 3 km away providing strong response capability to tenants in the event of a fire. The Company maintains daily computer backup of its operating servers and there is no direct access to the R&D servers via the internet. Operating backups are taken offsite each day.

5.0 RISK FACTORS

The biotechnology industry is generally regarded as high risk given the biological and chemical uncertainties inherent in the multitude of testing necessary in developing drug candidates and the long time line typical from discovery to availability as a prescribed drug. COTI operates in the earliest stage of the drug development cycle, the discovery stage, which is in the initial preclinical segment of the cycle. The realization of COTI's long-term potential is dependent upon the successful development and commercialization of molecule drug candidates found using COTI's proprietary technology, CHEMSAS®, and in expanding the use of this technology as a profiling service for third party customers in various ways. The major operating, financial, and industry risk factors affecting realization of this potential are set out by these categories in Table 10. These are listed by order of seriousness from highest to lowest risk in each category as determined by management at April 30, 2014. A detailed description of each risk and uncertainty follows the table.

Table 10: List of Categorized Risks

List of Risks by Category		
Operating	**Financial**	**Industry**
• Uncertainties Related to Research • Dependence on Third Party Synthesis and Contract Research Organizations • Dependence on Key Personnel • Negotiate Adequate License Deals • Meeting Projected Time-Frames • Uncertainties Related to Forecasts • Pre-commercialization • Trade Secrets and Proprietary Expertise • Patents • Defending Intellectual Property • Legislative Actions, New Accounting Pronouncements, Increased Insurance Costs • Lawsuits Related to Secondary Market Liability • Unforeseen Emergency Situations	• Lack of Product Revenues and Operating Cashflows • Financing Requirements • Access to Capital • Share Price Volatility • Dilution • Income Tax Matters • Dividends	• Rapid Technological Change • Uncertain Markets • Competition • Regulatory Environment • Government Regulation • Healthcare System Reforms

5.1 Operating Risks

5.1.1 *Uncertainties Related To Research*

Like other biotech and pharmaceutical companies, COTI's research programs are based on scientific hypotheses and experimental approaches that may not lead to desired results. In addition, the timeframe for obtaining proof of principle and other results may be considerably longer than originally anticipated, or may not be possible given time, resource, financial, strategic, and scientific constraints.

Success in one stage of testing is not necessarily an indication that a particular program will succeed 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 made for these programs will prove to be safe, effective, and suitable for human use at the various clinical stages. Each compound will require additional research and development, scale-up, formulation and extensive clinical testing in humans. Development of compounds may require further investigation into the MOA where this is not fully understood as many compounds have multiple MOAs. Unsatisfactory results obtained from a particular study relating to a compound or therapeutic program may cause COTI to abandon its commitment to that compound or program. The discovery of unexpected toxicities, lack of sufficient efficacy, poor physiochemical properties, unacceptable ADME properties, drug metabolism and pharmacokinetics, inability to increase scale of manufacture, market attractiveness, regulatory hurdles, as well as other factors, may make COTI's therapeutic targets, or product candidates unattractive or unsuitable for human use and COTI may abandon its commitment to that program, target, or product candidate. In addition, preliminary preclinical results for such test outcomes as toxicity or efficacy seen in animals and/or limited human cell line testing may not be substantiated in larger controlled clinical trials or at levels that are acceptable or justify further development.

5.1.2 *Dependence on Third Party Synthesis and Contract Research Organizations*

COTI depends on independent preclinical investigators, CROs, and other third party service providers to conduct synthesis and preclinical tests for its drug candidates and plans to continue to do so in the future. Although the Company does not anticipate any difficulty in obtaining such services, no assurance can be given that the Company will be able to obtain these in a timely and cost effective manner.

The Company relies heavily on these third parties for successful execution of preclinical tests, but does not control many aspects of their activities, as the investigators are not its employees. These third parties may not complete activities on schedule, or may not conduct the testing in accordance with protocols or regulatory requirements. It has been COTI's experience that even major brand name contracted testing labs are not immune to the need for the Company's watchful monitoring of test activities. COTI ultimately bears responsibility for ensuring that its preclinical testing is conducted in accordance with the quoted scope of the investigational plan and protocols of the required tests and that test outcomes are properly evaluated and reported.

5.1.3 *Dependence on Key Personnel*

The Company has a focus on the development of intellectual property. As a result, it depends heavily on the skills and knowledge of certain members of its management, operations, and scientific staff. The loss of service from one or more could adversely affect the operations. In particular, the Company's Chief Scientific Officer ("CSO") remains integral to the use of the CHEMSAS® discovery platform, as the Company is not staffed yet to a level where the transfer of this knowledge and expertise from its documented system with appropriate training materials for new scientist/technicians resides with multiple employees.

The Company's ability to manage growth effectively will require it to continue to implement and improve its proprietary R&D systems and to recruit and train new employees. COTI expects operating expenses and staffing levels to increase in the future as it completes its first licensing deal for COTI-2 and develops additional revenue streams. There can be no assurance that COTI will be able to successfully attract and retain skilled and experienced personnel as it strives toward its first licensing deal and manage its expanding operations effectively once this commercial transaction is achieved.

5.1.4 *Negotiate Adequate License Deals*

The Company's ability to commercialize its products successfully will depend on its ability to negotiate licensing agreements with biotech or Pharma companies for its compounds. While industry reviews of the productivity of pharmaceutical industry R&D spending in generating new compounds indicates major pharmaceutical company pipelines have dramatically underperformed in producing new drugs for the R&D dollars invested, there is no certainty that licensing deals can be negotiated for COTI's compounds. Major pharmaceutical companies are seeking assets with as low a risk profile as possible hence a preference for late stage clinical compounds with lower risk profiles having successfully reached as far as, or through, Phase 3 clinical trials. While it may seem a reasonable strategy to have a drug development pipeline across the entire development cycle there is no certainty that COTI can be a licensed provider of compounds to the preclinical or early clinical stage segment of this pipeline. There is also no certainty that COTI can obtain licensing terms that are acceptable in indicating a commercially viable market for its products.

5.1.5 *Meeting Projected Time-Frames*

COTI sets goals and makes public statements based upon management's best estimates regarding the timing of the accomplishment of objectives material to its success such as the commencement and completion of various preclinical testing and anticipated regulatory submissions. The actual timing of these events can vary sometimes dramatically for a variety of reasons. These include delays in achieving successful synthesis, delays or failures in COTI's preclinical testing, failure of CROs to follow testing protocols or deliver their services on a timely and effective basis and macro-events outside the CRO's control such as the availability of *in vivo* test subjects or a mass power outage. In addition, the further a compound advances in clinical trials the greater the impact regulatory body reviews can have on required filing approvals and hence time-lines. There can be no assurance that the Company's preclinical testing will be completed on a timely basis and that COTI will be able to commercialize its products as planned.

5.1.6 *Uncertainties Related to Forecasts*

COTI's expectations regarding the success of its drug discovery technology and its business are based upon forecasts that are dependent on external companies and organizations that are not under COTI's control and, as a result, may not be realized. COTI's revenue forecasts are based upon development milestones that COTI needs to achieve in order to be successful. The actual timing of these events may vary significantly due to factors beyond its control such as delays or failures in preclinical or clinical studies, uncertainties inherent in the regulatory approval process, delays in obtaining licensing

customers for the drug candidates or delays in the timing of partners fulfilling their obligations under collaboration agreements on a timely basis. There can be no assurance that licensees will make regulatory submissions, receive regulatory approvals as forecasted or that these will occur as set out in COTI's forecasts. The failure to do so could have an adverse effect on its forecasts and business success.

5.1.7 *Pre-commercialization*

Compound libraries or individual compounds developed by COTI are expected to be licensed by the Company in the next few years. While COTI's technology is used to optimize molecules before synthesis and testing takes place, not every molecule that COTI identifies can be guaranteed to be a success in preclinical or clinical development as COTI's drug discovery platform, CHEMSAS®, is a predictive system providing a probability measure of success. None of the probability predictions is a 100% guarantee.

Further, competitors may develop alternative products and methodologies to treat the diseases COTI targets and this could reduce the interest in, or desirability of COTI's compounds that are in development. Finally, COTI cannot be assured whether any of its potential product development efforts will prove to be effective in humans until such testing is undertaken.

5.1.8 *Trade Secrets and Proprietary Expertise*

In addition to patents, COTI relies on trade secrets and proprietary expertise to protect its intellectual property. The Company requires its employees, consultants, outside scientific collaborators and sponsored researchers and other advisors to enter into a confidentiality agreement ("CA"). These CAs provide that all confidential information developed or made known to the individual during the course of the individual's relationship with COTI be kept confidential and not be disclosed to third parties except in specific circumstances. In the case of COTI's employees, the CAs provide that all of the technology conceived by the individual during the course of employment with COTI is COTI's exclusive property. Employees are subject to a two year non-competition clause upon departure and at present, access to the total CHEMSAS® process is restricted such that only one individual, the CSO, has access to the whole process. In addition, the Company enters into confidential disclosure agreements ("CDAs") with parties interested in licensing its compounds to protect the scientific data disclosed to interested parties. These CDAs vary from two to five years in length. Despite such CAs and CDAs in place, these agreements may not provide meaningful protection or adequate remedies in the event of unauthorized use or disclosure of COTI's proprietary information. This is because it is possible that third parties could independently develop proprietary information and techniques substantially similar to those of COTI or otherwise gain access to COTI's trade secrets outside of a breach of confidentiality. The loss of such confidentiality could have a harmful impact on the Company.

COTI currently has the right to use certain software technologies under license agreements with third parties. COTI's failure to comply with the requirements of these license agreements could result in the termination of such agreements and this could either cause COTI, on a temporary or permanent basis, to terminate the related development programs and cause impairment or complete loss of its investment in such programs. Under these circumstances, COTI may not be able to rely on its intellectual property to protect its products in the marketplace or its ability to continue to identify new therapies.

5.1.9 *Patents*

COTI's success depends to a significant degree on its ability to develop proprietary compounds or libraries of compounds for specific therapy targets and to obtain patent protection for products derived from these developments in Canada, the United States and other countries. Success also depends, in large part, on COTI's ability to protect its competitive position through maintaining and defending these patents, trade secrets, trademarks and other intellectual property rights. To assist in the successful filing and maintenance of its patents, the Company utilizes external expertise including a patent consultant, patent agents, patent attorneys, and patent annuity service bureaus for the respective legal jurisdictions as deemed necessary.

COTI files patent applications as appropriate for each compound covering the mechanism of action, synthetic process, and therapeutic indication. While COTI seeks to develop molecules that are effective against an unmet medical need and that are in an open patent space, publications of discoveries in scientific or patent journals tend to lag behind the date of the actual discoveries by several months. For this reason, COTI cannot be certain that it will be the first inventor (the first to file a patent application) for such invention. Further, because patents can take many years to issue, there may currently be pending applications of which COTI is unaware that may later result in issued patents that its products could infringe. Consequently, patents may not be granted for every patent application submitted or granted for claims as originally filed that will prove valuable. In such situations, the Company could incur negative financial outcomes.

COTI cannot assure that patents will be granted on its applications in any jurisdiction, as it has no control over the prosecution of such applications by the patent granting bodies. COTI also cannot assure that the scope of its patents will be sufficiently broad to offer meaningful protection. In addition, issued patents could be successfully challenged, invalidated, circumvented, or stalled in court proceedings so that COTI's patent rights would not create an effective competitive barrier and could result in negative financial outcomes.

5.1.10 *Defending Intellectual Property*

COTI cannot guarantee that it will not have to defend its intellectual property rights. In the event of an intellectual property dispute, COTI may be forced to defend its intellectual property assets, which could involve litigation or proceedings declared by a patent office or by a trade commission. COTI's involvement in any patent litigation, interference, opposition or other administrative proceedings will likely cause the Company to incur substantial expense and the efforts of its technical and management personnel will be significantly diverted. The abandonment of intellectual property in which COTI has significant investment could even occur. An adverse determination in litigation, depending upon the point in the life of the patent and the nature of the litigation, could subject the Company to significant liabilities.

5.1.11 *Legislative Actions, New Accounting Pronouncements, Increased Insurance Costs*

Changing laws, regulations, and standards relating to corporate governance and public disclosure create uncertainty and a significant cost for small public companies such as COTI. Compliance with such changes may result in significant additional expenses that use a significant percentage of the Company's human and cash resources. These uncertainties coupled with inherent risks as a public company and in operating activities, such as moving forward with a clinical trial, can result in increased insurance costs to protect the various stakeholders.

5.1.12 *Lawsuits Related To Secondary Market Liability*

As a public company, COTI is exposed to a greater extent than a private company to the potential for unhappy shareholders/suppliers/customers that could lead to the Company and its directors being sued. Such suits could absorb substantial time, money, resources and attention of the Company's employees or force the Company to settle such claims rather than seek adequate judicial remedy or dismissal of such claims whether such suits are frivolous or not.

5.1.13 *Unforeseen Emergency Situations*

Despite the implementation of security measures, the Company and its collaborators and third party service providers have internal computer systems that are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failure. Any resulting system failure, accident, or security breach that causes interruptions in normal operations could result in a material disruption of the Company's drug discovery programs. To the extent the Company's drug discovery software processes are adversely affected may negatively impact the development plans of the Company's product candidates. To the extent that any disruption leads to a security breach and inappropriate disclosure of confidential or proprietary information may cause COTI to incur liability as a result. In addition, COTI may incur unexpected costs to remedy the damage caused by these disruptions or security breaches.

5.2 Financial Risks

5.2.1 *Lack of Product Revenues and Operating Cashflows*

COTI has not recorded any revenues from the sale of drug compounds or compound libraries since becoming a public company in October 2006. COTI has an accumulated deficit since its inception to April 30, 2014 of $21,950,145. This deficit is expected to increase in the near term as COTI continues its business and product development efforts, develops relationships with prospective customers, and ultimately generates revenue under licenses agreements. Operating losses will be incurred until revenues from upfront licensing payments, milestone payments and royalty payments are sufficient to fund its continuing operations. COTI is unable to predict either when it will become profitable or the extent of any future profits or losses with any certainty.

Any milestone payments and future royalties arising from the licensing of COTI's products will be affected by the test outcomes in future development. This is because the results of early preclinical

research may not be indicative of the results obtained in later stages of preclinical or clinical research that may affect milestone payments and future royalties. In addition, milestone payments and royalties are subject to the business success or failure of COTI's licensees in developing the product, marketing the product and in remaining profitable themselves.

5.2.2 *Financing Requirements*

The Company needs to seek additional funds to continue to develop its clinical and discovery programs, develop new revenue streams and to move its compounds more rapidly through development in fiscal 2015 and beyond. The Company intends to raise these funds through public or private equity offerings or collaborations with other biopharmaceutical companies and/or from other sources. There can be no assurance additional funding will be available on terms acceptable to COTI that would lead to the successful commercialization of its products. In addition, the Company has access to funds through the exercise of warrants and share options should the Company's share price reach levels that will cause such security holders to exercise. There is no assurance that the Company's share price will reach the price levels that will cause such security holders to exercise their rights to acquire shares. If adequate funding is not available, COTI may be required to delay, reduce, or eliminate one or more of its product development programs or obtain funds through corporate partners or others who may require it to relinquish significant rights to product candidates or obtain funds on less favourable terms than COTI would otherwise accept. COTI's success in obtaining future capital requirements will depend on many factors, such as achieving a licensing agreement for COTI-2, establishing and maintaining collaborative partnering relationships and the general economic conditions and availability of capital in the equity markets for biotechnology companies.

5.2.3 *Access to Capital*

In seeking to raise equity capital, COTI will have to price such equity offerings ("Offering") in relation to the market's current perception of value. Among the factors to be considered in determining the price of the Offering are the following:

- COTI's future revenue prospects both short and long term;
- the current market price of its securities in relation to such future cash flows;
- the pricing of comparable company deals engaged in activities similar to COTI such as unit or share pricing, warrant offering size, warrant pricing and warrant expiry term;
- the prospects of COTI's prospective markets and the industry in general; and,
- COTI's financial and operating management record.

Accordingly, the Offering price may not be indicative of the market value for COTI after the Offering, which value may rise or decline in relation to the value reflected in the issue price of the Offering.

5.2.4 *Share Price Volatility*

The Company's common shares are publicly traded and are subject to various factors that may make the Company's share price volatile. A number of factors influence the volatility in the trading price of COTI's common shares, including changes in the economy and the financial markets, industry related developments, and the impact of changes in COTI's operations. The market prices for securities of biotechnology-based companies, such as COTI, have been historically volatile.

Numerous factors besides those listed in this AIF, including many over which the Company has no control, may have a significant impact on the market price of common shares including:

(a) clinical and regulatory developments regarding the Company's products and product candidates and those of its competitors;

(b) acquisitions, strategic partnerships, or joint ventures involving the Company or its competitors;

(c) announcements by the Company or its competitors regarding technological, product development, sales, or other matters;

(d) patent or other intellectual property achievements or adverse developments;

(e) arrivals or departures of key personnel;

(f) government regulatory action affecting the Company's product candidates in the United States, Canada, and foreign countries;

(g) the Company's operating performance and the performance of competitors and comparable companies;

(h) the public's reaction to the Company's press releases;

(i) the liquidity in the public market for the Company's common shares;

(j) changes in local and global economic conditions, general market conditions and fluctuations for the emerging growth and biopharmaceutical market sectors;

(k) reports of securities analysts regarding the expected performance of the Company or its competitors; and,

(l) events related to new or threatened litigation should they occur.

In recent years, the stock market has also experienced extreme price and trading volume fluctuations that often have been unrelated or disproportionate to the operating performance of individual companies (i.e. European debt crisis, U.S. quantitative easing program). These broad market fluctuations may adversely affect the price of common shares, regardless of the Company's operating performance. In addition, sales of substantial amounts of common shares in the public market after any offering, or the perception that those sales may occur, could cause the market price of common shares to decline. Further, dissident/activist shareholder activities may affect the market price of the Company's stock, negatively or positively, which may cause the Company to incur substantial costs and could divert the time and attention of its management.

5.2.5 *Dilution*

The raising of additional equity capital will result in an immediate and substantial dilution of investment for current shareholders to the extent they do not participate in such financings on a basis to maintain their current ownership position. If warrants of COTI issued in previous years with equity offerings are subsequently exercised into COTI common shares, an investor could experience further dilution. Similarly, the Company has issued share options as compensation to members of its Board of Directors for their board services and to certain employees, which if exercised, would result in further dilution for current shareholders.

5.2.6 *Income Tax Matters*

COTI is eligible for investment tax credits ("ITCs") in respect of scientific research and experimental development ("SRED") expenditures both federally and provincially. There is a risk that the various governments, individually or in concert, could enact changes to the eligibility requirements of such programs that could reduce the amount of ITCs the Company receives either as a cash refundable credit or as a credit against future taxes payable. In this regard, the Canadian federal government enacted changes in its March 2012 budget that reduced the amount of such ITCs by first, limiting the eligibility of contract expenses to 80% from 100% of such expenses; and second, reducing the rate used in the calculation of the overhead proxy amount included in determining eligible SRED. Such changes reduced COTI's ITCs for fiscal 2013 and 2014 compared to the ITCs that would have been earned prior to such changes.

There is also a risk that the Canada Revenue Agency could conclude upon audit that some of the expenditures filed for ITCs were not incurred on SRED activities and, therefore, could reduce or disallow claims for ITCs, resulting in potential repayment of previous refundable ITCs received. Finally, any unused ITCs are eligible to be carried forward for 20 years. These ITC programs are subject to change by the various government levels and may or may not be available in future years or at current credit levels.

5.2.7 *Dividends*

The payment of dividends in the future will be dependent on COTI's earnings and financial condition and on such other factors as its Board of Directors considers appropriate. Unless and until COTI pays dividends, shareholders may not receive a return on their ownership of common shares except to the extent of appreciation in value in the public market. There is no expectation that the Board of Directors of COTI will pay dividends on the COTI common shares in the near future.

5.3 Industry Risks

5.3.1 *Rapid Technological Change*

As discussed above, the industry in which COTI operates is characterized by rapid and substantial technological change. There can be no assurance that developments by others will not render COTI's products or technologies less competitive or that COTI will be able to keep pace with technological developments. COTI's competitors may develop drug discovery platforms or drug candidates that are competitive or superior products.

5.3.2 *Uncertain Markets*

Much of COTI's strategy is based upon the belief that the drug candidates it is developing have a high probability of becoming effective therapies in areas of unmet medical need. Notwithstanding the estimated market potential for its products and product candidates, no assurance can be given that COTI's projections and assumptions will prove to be correct owing to, in particular, competition from existing or new products and the yet to be established clinical viability of its identified drug candidates or changes in disease frequency or biology.

The Company believes that there can be many different applications for products successfully derived from its technologies and that the anticipated market for products under development will continue to expand. No assurance, however, can be given that these beliefs will prove to be correct due to competition from existing or new products and the yet to be established commercial viability of such products.

5.3.3 *Competition*

The biotechnology industry is highly competitive. COTI competes with companies around the world that are engaged in the development of pharmaceutical products. They include: biotechnology, pharmaceutical, chemical, and other companies; academic and scientific institutions; government agencies; and public and private research organizations. Most of COTI's competitors have substantially greater financial and human resources than it does. Accordingly, COTI's success on the buy side is predicated upon finding appropriate licensees and in selecting strong contract research organizations for its preclinical activities. Correspondingly, success on the sell side requires developing multiple relationships with key decision makers at prospective customers in the business development, R&D and C-suite levels to achieve recognition of the value of its compound and technology offerings.

5.3.4 *Regulatory Environment*

The Company's business model is to license its compounds prior to clinical trials. Licensing revenues are anticipated to include revenues for development and commercial milestones as well as royalties on drug sales. At present, none of the Company's drug candidates has received regulatory approval for commercial sale.

Numerous statutes and regulations govern human testing and the manufacture and sale of human therapeutic products in Canada, the United States and other countries where potential licensees would

likely market compounds licensed from COTI. The process of obtaining necessary regulatory approvals is lengthy, expensive, and uncertain.

The completion of the clinical testing of COTI's drug candidates and the obtaining of required approvals are expected to take years and require the expenditure of substantial resources. There can be no assurance that clinical trials will be completed successfully. Clinical trials for COTI's drug candidates require that the licensees identify and enroll a large number of patients having the disease under investigation. Licensees may not be able to enroll a sufficient number of patients to complete clinical trials in a timely manner. Patient enrolment is a function of many factors including, but not limited to, design of the study protocol, size of the patient population, eligibility criteria for the study, the perceived risks and benefits of the therapy under study, the patient referral practices of physicians and the availability of clinical trial sites. If the licensee has difficulty enrolling a sufficient number of patients to conduct the clinical trials as planned, it may need to delay or terminate ongoing clinical trials. Further, clinical trials may be delayed or suspended at any time by the licensee or by regulatory authorities if it is determined at any time that patients may be exposed to unacceptable health risks, including the risk of death, or that compounds are not manufactured under acceptable Good Manufacturing Practice conditions or with acceptable quality. Any failure or delay in obtaining regulatory approvals would adversely affect COTI's potential milestone and royalty payments. No assurance can be given that COTI's drug candidates will prove to be safe and effective in clinical trials or that they will receive the requisite protocol approval or regulatory approval to realize on milestone and royalty receipts.

Further, no assurance can be given that current regulations relating to regulatory approval will not change or become more stringent. There are no assurances the licensee can scale-up, formulate, or manufacture any compound in sufficient quantities with acceptable specifications for the regulatory agencies to grant approval, or not to require additional changes or additional trials to be performed. The agencies may also require additional trials be run in order to provide additional information regarding the safety, efficacy or equivalency of any compound for which the licensee seeks regulatory approval. Foreign markets other than the United States and Canada impose similar restrictions. Even if the regulatory authority approves a drug, COTI may not obtain approval for an indication whose market is large enough to obtain commercial milestones or royalty payments.

5.3.5 *Government Regulation*

Even if regulatory authorities approve any of the Company's drug candidates, the manufacture, marketing, and sale of such products will be subject to strict and ongoing regulation. Compliance with such regulation is expensive and consumes substantial financial and management resources. If the licensee, or any future marketing collaborator or contract manufacturer, fails to comply with applicable regulatory requirements, it may be subject to sanctions including fines, product recalls or seizures, injunctions, total or partial suspension of production, civil penalties, withdrawal of regulatory approvals and criminal prosecution. Any of these sanctions could delay or prevent the realization by COTI of milestone and royalty payments.

5.3.6 *Healthcare System Reforms*

In Canada and in many other countries, pricing and hence profitability of some or all prescription pharmaceuticals and biopharmaceuticals are subject to government control. This emphasis on managed healthcare is expected to continue and will put pressure on the pricing of pharmaceutical products. Election of new or different political or government officials in large market countries could lead to dramatic changes in pricing, regulatory approval legislation and reimbursement that could have material impact on product approvals and commercialization of COTI's licensed products. Continuing efforts to contain or reduce the costs of healthcare may limit the commercial opportunity for COTI's compounds and reduce any associated milestone and royalty revenues and profits through a licensee.

6.0 DIVIDENDS

COTI has not declared or paid any dividends on its common shares since the date of its incorporation and does not currently have a policy to pay dividends. COTI does not envision any earnings arising during fiscal 2015 from which dividends would be paid. COTI anticipates that it will initially retain future earnings and other cash resources for the operation and development growth of the business, which would preclude the payment of dividends. The payment of dividends in the future will depend on revenues, net income, positive cash flow, COTI's financial condition and such other factors, as the Directors of COTI consider appropriate in making a determination to pay dividends.

7.0 DESCRIPTION OF CAPITAL STRUCTURE

7.1 Authorized and Outstanding Capital

The Company's authorized share capital consists of an unlimited number of common shares and an unlimited number of preference shares, issuable in series, of which 96,807,979 common shares were issued and outstanding as of April 30, 2014. There were no preference shares issued and outstanding as of April 30, 2014.

The following is a summary of the material provisions attached to the common shares and preference shares.

Common Shares

The holders of the common shares are entitled to receive notice of all meetings of the shareholders of the Company; attend all such meetings; and shall have one vote for each common share held at all such meetings, except for meetings at which only holders of another specified class or series of shares are entitled to vote separately as a class or series. Subject to the prior rights of the holders of the preference shares or any other shares ranking senior to the common shares, the holders of the common shares are entitled to:

(a) receive any dividends as and when declared by the Board of Directors out of the assets of the Company properly applicable to the payment of dividends, in such amount and in such form as the Board of Directors may from time to time determine; and,

(b) receive the remaining property of the Company in the event of any liquidation, dissolution or winding-up of the Company.

Preference Shares

The Board may issue preference shares at any time and from time to time in one or more series, each series of which shall have the designations, rights, privileges, restrictions, and conditions fixed by the Board. The preference shares of each series shall rank on parity with the preference shares of every other series. They shall be entitled to priority over the common shares and any other shares of the Company ranking junior to the preference shares with respect to priority in the payment of dividends and the return of capital and the distribution of assets of the Company in the event of the liquidation, dissolution or winding-up of the Company.

Subsequent to April 30, 2014 and prior to the date of this AIF, there were a number of transactions that increased the issued and outstanding common shares of the Company as summarized in Table 11 below.

Table 11: Continuity of Outstanding Share Capital

Date	Nature of transaction	Common Shares Issued and Outstanding
May 1, 2014	Opening balance	96,807,979
June 3, 2014	Private placement [(1)]	5,595,135
June 20, 2014	Option exercise [(2)]	385,192
June 30, 2014	Warrant exercise [(3)]	214,092
July 23, 2014	Balance on filing AIF	103,002,398

(1) Completed the second tranche of a non-brokered private placement. The first tranche closed on April 30, 2014 (3.1.3 Capital Financing).

(2) Options exercised by a former Director.

(3) Warrants exercised related to January 30, 2013 private placement with a July 29, 2014 expiry date.

7.2 Options to Purchase Common Shares

Table 12 lists the number of share options to purchase common shares of COTI issued and outstanding as at April 30, 2014, as presented in ascending exercise price order. The Company has a rolling Share Option Plan ("SOP") wherein the pool of available share options to grant is represented by 10% of the Company's outstanding common shares. Accordingly, after allowing for the outstanding share options set out in the table, there are 3,212,693 share options available for future awards under the Company's SOP at April 30, 2014.

Table 12: Outstanding Share Options by Exercise Price

Date of Grant	# of Options	Exercise Price	Expiry Date
Sep 10/12	200,000	$0.14	Apr 30/15
Sep 10/12	200,000	$0.14	Sep 9/17
Mar 31/11	56,818	$0.15	Apr 30/15
Sep 25/12	702,576	$0.16	Apr 30/15
Sep 25/12	1,139,931	$0.16	Sep 24/17
Oct 28/10	1,065,892	$0.165	Oct 27/15
Dec 5/14	971,167	$0.18	Dec 4/18
Oct 15/13	200,000	$0.24	Apr 30/15
Oct 18/11	53,965	$0.25	Oct 17/16
Oct 2/13	250,000	$0.25	Oct 1/18
Jul 11/12	17,838	$0.28	Apr 30/15
Sep 27/11	292,683	$0.30	Apr 30/15
Sep 27/11	463,415	$0.30	Sep 26/16
Jun 21/11	200,000	$0.35	Apr 30/15
Feb 12/10	172,340	$0.47	Feb 11/15
Sep 10/09	481,483	$0.50	Sep 9/14
Total	6,468,108		

Table 13 below presents the outstanding share options by expiry year and month within each year to provide an overview of timing of the expiries in future years.

Table 13: Outstanding Share Options by Expiry Month

Year	# of Options	Expiry Month
2014	481,483	September
Total	481,483	
2015	172,340	February
	1,669,915	April
	2,908,147	October
Total	2,205,571	
2016	463,415	September
	53,965	October
Total	517,380	
2017	1,339,931	September
Total	1,339,931	
2018	250,000	October
	971,167	December
Total	1,221,167	
Grand total	6,468,108	

7.3 Warrants to Purchase Common Shares

As at April 30, 2014, the Company had outstanding common share purchase warrants issued from a series of private placements occurring in recent years as set out in Table 14.

Table 14: Warrants Issued and Outstanding from Private Placements

	Grant Period	Purchase Warrants Issued	Exercise Price	Expiry Date	Compensation Warrants Issued	Exercise Price	Expiry Date
1	April-May 2010	129,019 1,446,481	$0.55 $0.37	Mar 31/15	-	-	-
2	March-April 2011	12,500,000	$0.30	May 31/14 (1)	-	-	-
3	March-April 2012	11,250,000	$0.26	Apr 23 - May 23/15	-	-	-
4	January 2013	3,605,258	$0.26	Jul 29/14	232,652	$0.20	Jul 29/14
5	May-June 2013	4,415,895	$0.26	Nov 30 – Dec 20/14	88,213	$0.20	Nov 30 – Dec 20/14
6	August 2013	10,208,132	$0.26	Feb 15 – Mar 1/15	267,130	$0.20	Feb 27 – Mar 1/15
7	February 2014	1,250,000	$0.20	Feb 4/15	-	-	-
8	February 2014	769,230	$0.26	Feb 4/19	-	-	-
9	April 2014	3,356,250	$0.28	April 29/16	242,000	$0.22	Apr 29/16
		48,930,265			829,995		

(1) Amended subsequent to April 30, 2014, on May 27, 2014 with a new expiry date of March 15, 2016.

The warrants issued under the private placements in 2010-2012 were amended to extend the expiry date. The warrants issued in 2010 were also amended as to price with the exception of 129,019 warrants held by insiders that were not eligible under TSXV regulations for price amendment. Compensation warrants are not eligible for amendment under TSXV regulations and accordingly expire on the expiry date set out in the initial award unless exercised on or prior to such date.

In addition to the price amendment, the new expiry dates of the warrants amended for the 2010, 2011, and 2012 private placements will be reduced to a period of 21 days if, for any ten consecutive trading days during the unexpired term of the warrant (the "Premium Trading Days"), the closing price of the Common Shares on the TSXV equals or exceeds certain market threshold prices respecting the respective warrants. The reduced exercise period of 21 days will begin seven calendar days after the tenth Premium Trading Day.

Summary details for all warrants outstanding at April 30, 2014 are set out in Table 15 as listed by expiry date, earliest to latest. As noted in this table, the Company has also issued warrants as compensation

for financial advisory fees from a U.S. based investment bank in the last quarter of fiscal 2014 related to the development and implementation of a U.S. investment strategy.

Table 15: All Outstanding Warrants by Expiry Date

Warrant Type	Date of Issue	Quantity	Exercise Price	Expiry Date
Purchase				
	Mar 25/11	8,152,500	$0.30	May 31/14
	Apr 7/11	2,187,500	$0.30	May 31/14
	Apr 21/11	2,160,000	$0.30	May 31/14
	Jan 30/13	3,605,258	$0.26	Jul 29/14
	May 31/13	2,412,397	$0.26	Nov 30/14
	Jun 21/13	2,003,498	$0.26	Dec 20/14
	Feb 5/14	1,250,000	$0.20	Feb 4/15
	Aug 16/13	4,166,666	$0.26	Feb 15/15
	Aug 28/13	4,974,799	$0.26	Feb 27/15
	Aug 30/13	1,066,667	$0.26	Mar 1/15
	Apr/10	129,019	$0.55	Mar 31/15
	Apr-May/10	1,446,481	$0.37	Mar 31/15
	Mar 23/12	3,125,000	$0.30	Apr 23/15
	Apr 10/12	6,250,000	$0.30	May 9/15
	Apr 27/12	1,875,000	$0.30	May 26/15
	Apr 30/14	3,356,250	$0.28	Apr 29/16
	Feb 5/14	769,230	$0.26	Feb 4/19
Subtotal		48,930,265		
Compensation				
	Jan 30/13	232,652	$0.20	Jul 29/14
	May 31/13	23,000	$0.20	Nov 30/14
	Jun 21/13	65,213	$0.20	Dec 20/14
	Aug 28/13	213,797	$0.20	Feb 27/15
	Aug 30/13	53,333	$0.20	Mar 1/15
	Apr 30/14	242,000	$0.22	Apr 29/16
	Apr 11/14	1,500,000	$0.19 USD	Apr 11/19
Subtotal		2,329,995		
Grand total		51,260,260		

7.4 Principal Holders of Voting Securities of the Company

To the knowledge of the Directors and executive officers of the Company no persons or companies beneficially own, directly or indirectly, or exercise control or direction over, voting securities of the Company carrying more than 10 percent of the voting rights attached to any class of voting securities of the Company as of April 30, 2014, or the date of this AIF.

8.0 MARKET FOR SECURITIES

8.1 Trading Shares and Prices

The Company's common shares are listed and posted for trading on the TSXV under the trading symbol COT. Table 16 sets out the market price range for the highest and lowest price on a monthly basis in CAD dollars per common share as well as the aggregate trading volumes as reported by the TSXV during the most recently completed fiscal year.

Table 16: Common Share Trading Prices and Volume in Fiscal 2014

Month	High	Low	Volume
May 2013	$ 0.130	$ 0.100	615,834
June 2013	0.175	0.105	819,230
July 2013	0.190	0.125	2,621,141
August 2013	0.380	0.180	2,315,020
September 2013	0.280	0.235	672,600
October 2013	0.255	0.170	862,397
November 2013	0.225	0.160	803,769
December 2013	0.190	0.120	579,597
January 2014	0.225	0.145	2,676,141
February 2014	0.285	0.185	2,083,038
March 2014	0.250	0.180	1,032,580
April 2014	0.210	0.145	682,546
Year	$ 0.380	$ 0.100	15,763,893
Ave Daily Trading			62,555

9.0 DIRECTORS AND OFFICERS

9.1 Name, Occupation and Security Holdings

The following information related to each Director and officer of COTI is set out below; name, province and country of residence, positions held by them with COTI, their principal occupation during the preceding five years, the period of service as a Director, the number and percentage of securities of each class of voting securities controlled or directed, directly or indirectly, Board Committee membership and participation. The information as to shares beneficially owned, directly or indirectly, or over which control or direction was exercised as set forth in the table has been furnished by the respective individual. Each term of a director is for the period from the last AGM until the next AGM unless noted otherwise. The information presented below is as of the date of this AIF.

John C. Drake LLB London, Ontario, Canada President of Drake Goodwin Corp. Director Since: February 20, 2007 Independent Director	Mr. Drake is the President and Founding Partner of Drake Goodwin Corporation, a London, Ontario private investment firm with diverse interests. Mr. Drake is also a partner in Cassandra Capital L.P., a private venture capital firm specializing in early stage technology investments. During his business career, he has served on the Board of many public and private companies. Until July 2013, he was Vice Chairman of Children's Choice Learning Centers, a private company and a leading provider of corporate childcare in the United States. He is also co-owner of Redtail Golf Course, an exclusive private golf course located outside of Port Stanley, Ontario. Mr. Drake has provided extensive support to community events and was appointed an Honorary Colonel of the 1st Hussars of the Royal Canadian Armoured Corps in 1999. Mr. Drake obtained his BA and LLB degrees from Western University and was a member of the Law Society of Upper Canada from 1973-2012.

Other Public Company Directorships in the Past Five Years

- 2009 to present, iLOOKABOUT Corp., a TSXV listed company.
- 2011 to present, Lexam VG Gold Inc., a company listed on the TSX, FWB and OTCQX

Board/Committee Membership	Attendance	
Board (Chair)	14 of 16	87.5%
Governance	1 of 1	100%
Combined Total	15 of 17	88%

Equity Ownership (1)

Common Shares	Share Options	Warrants	% Ownership (3)
9,364,634	990,020	3,531,178	9.09%

Dr. Wayne R. Danter MD, FRCPC London, Ontario, Canada President, Chief Executive Officer, and Chief Scientific Officer Director Since: October 13, 2006 Non-independent Director	Dr. Danter is one of the founders of COTI and the inventor of the Company's platform drug discovery process, CHEMSAS®. He trained at Western University ("Western") in Internal Medicine and Clinical Pharmacology. Dr. Danter is responsible for the discovery and profiling of the Company's small molecule portfolios, collaboration projects with pharmaceutical partners, and continued development of CHEMSAS®. He also plays a significant role in developing new business applications of COTI's proprietary technology. Prior to full time employment with COTI in 2005, Dr. Danter was an Associate Professor of Medicine at Western and maintained a medical practice.

Other Public Company Directorships in the Past Five Years

None

Board/Committee Membership	Attendance	
Audit	6 of 6	100%
Board	14 of 16	87.5%
Governance	1 of 1	100%
Combined Total	21 of 23	91%

Equity Ownership (1)

Common Shares	Share Options	Warrants	% Ownership (3)
6,365,162	842,896	175,028	6.18%

Douglas S. Alexander CPA, CA London, Ontario, Canada Professional Corporate Director Director Since: September 18, 2008 Independent Director	Prior to his current role as a Professional Corporate Director, Mr. Alexander served as Chief Financial Officer of various Canadian public companies for 15 years, the most recent being from 1999 to 2004 as Executive Vice President and Chief Financial Officer of Trojan Technologies Inc., an international environmental technology company. Mr. Alexander is a Chartered Accountant and a Chartered Director, having graduated in 2009 from the Director's College, a joint venture between McMaster University and the Conference Board of Canada.

Other Public Company Directorships in the Past Five Years

- 2005 to present, Hydrogenics Corporation, a NASDAQ and TSX listed company – Chairman of the Board since March 2009.
- 2010 to June 2012, Biorem Inc., a TSXV-listed company.

Board/Committee Membership	Attendance	
Audit (Chair)	6 of 6	100%
Board	15 of 16	94%
Combined Total	21 of 22	95%

Equity Ownership [1]

Common Shares	Share Options	Warrants	% Ownership [3]
128,300	758,480	113,300	0.12%

Bruno Maruzzo MASc, MBA Toronto, Ontario, Canada President of TechnoVenture Inc. Director Since: October 13, 2006 Independent Director	Mr. Maruzzo has worked with a variety of public and private technology companies in the computer and life science sectors, where he held positions in a range of areas including business development, corporate development, investor relations, engineering and general management. He also worked in the venture capital field sourcing, assessing, and making investments in early-stage, technology-based companies in Canada and the US. He holds Masters Degrees in Biomedical Engineering and Business Administration from the University of Toronto.

Other Public Company Directorships in the past five years

- 2003 to present, Pinetree Capital, a TSX-listed company.
- 2007 to present, Hamilton Thorne Limited (formerly Calotto Capital), a TSXV-listed company.
- 2008 to present, Strike Graphite Corp (formerly Minati Capital), a TSXV-listed company.
- 2008 to present, Sintana Energy (formerly Drift Lake Resources), a TSXV-listed company.
- March 2010 to present, Diagnos Inc., a TSXV-listed company.
- November 2012 to present, Aim Explorations, a TSXV-listed company.

Board/Committee Membership	Attendance	
Audit	6 of 6	100%
Board	16 of 16	100%
Combined Total	22 of 22	100%

Equity Ownership [1]

Common Shares	Share Options	Warrants	% Ownership [3]
133,300	715,007	103,300	0.13%

<table>
<tr><td>David Sanderson
LLB

London, Ontario, Canada

President and CEO, KFL Investment Management Inc.

Director since: December 5, 2013

Independent Director</td><td colspan="4">Mr. Sanderson is the President, CEO and a co-founder, of KFL Investment Management Inc. (KFL), an algorithmic hedge fund and proprietary trading firm based in Waterloo and London, Ontario. He is also an active private investor and co-founded Entertech Systems Inc. and Actual ID, companies that make biometric access, control and time and attendance technology and software. Mr. Sanderson is also a General Partner in a small venture fund that has investments in the medical device and security equipment industries. Prior to his role at KFL, Mr. Sanderson spent 15 years in the financial services industry with his most recent role as a Managing Director at BMO Nesbitt Burns where he managed one of the largest retail brokerage offices in Canada. Prior to this position, he worked in retail brokerage at TD Waterhouse and in distribution at AIM Trimark Investments. Mr. Sanderson has a business degree from The Richard Ivey School of Business at Western University and a law degree from Queen's University. He was called to the Ontario Bar in 1992 and practiced at Stikeman, Elliott in Toronto, Ontario for seven years as a corporate, commercial, and insolvency litigator. Mr. Sanderson has been active in the community having recently served on the Board of Directors of London Health Sciences Centre from 2009-2012 and the Fowler Kennedy Sports Injury Clinic from 2009-2012.</td></tr>
<tr><td rowspan="6"></td><td colspan="4">Other Public Company Directorships in the Past Five Years</td></tr>
<tr><td colspan="4">None</td></tr>
<tr><td colspan="2">Board/Committee Membership</td><td colspan="2">Attendance</td></tr>
<tr><td colspan="2">Audit [2]
Board [2]
Combined Total [2]</td><td>3 of 3
11 of 11
14 of 14</td><td>100%
100%
100%</td></tr>
<tr><td colspan="4">Equity Ownership[1]</td></tr>
<tr><td>Common Shares</td><td>Share Options</td><td>Warrants</td><td>% Ownership [3]</td></tr>
<tr><td>679,999</td><td>145,985</td><td>679,999</td><td>0.66%</td></tr>
</table>

<table>
<tr><td>Gene Kelly

London, Ontario, Canada

Chief Financial Officer

Non-Director</td><td colspan="4">Mr. Kelly has thirty-four years of business experience in accounting, finance, and operations following graduation with an Hon. Bus. Admin. degree from the University of Windsor in 1980. For the 17 years prior to joining COTI full-time on January 1, 2007, his career developed through various positions of increasing responsibility at the Cuddy Group of Companies, a large, private, entrepreneurial, multi-national agrifood business. Positions held in the ten years prior to joining COTI included: September 1995 Director of Financial Planning & Analysis - Cuddy Farms and Controller - Cuddy Farms Canada; February 1998 VP Strategic Implementations - Cuddy Farms; April 1999 VP Commodities & Industry Affairs - Cuddy Food Products; March 2001 Director of Finance - Cuddy Farms; November 2003 Director of Quality Assurance & Process Improvement - Cuddy Farms.</td></tr>
<tr><td rowspan="6"></td><td colspan="4">Other Public Company Directorships in the Past Five Years</td></tr>
<tr><td colspan="4">None</td></tr>
<tr><td colspan="2">Board/Committee Membership</td><td colspan="2">Attendance</td></tr>
<tr><td colspan="2">N/A</td><td></td><td></td></tr>
<tr><td colspan="4">Equity Ownership [1]</td></tr>
<tr><td>Common Shares</td><td>Share Options</td><td>Warrants</td><td>% Ownership [3]</td></tr>
<tr><td>1,234,491</td><td>410,701</td><td>105,264</td><td>1.20%</td></tr>
</table>

Notes:

(1) Number of common shares, share options and warrants beneficially owned, directly or indirectly, or controlled or directed**.**

(2) Mr. Sanderson was appointed to the Board on December 5, 2013 and accordingly was not eligible to attend any Board or Audit meetings until after this date.

(3) The ownership % was calculated on a non-diluted basis using the outstanding common shares as at July 23, 2014, being 103,002,398.

The Compensations Committee and the Governance and Nominating Committee did not meet formally during fiscal 2014 with the mandate of both Committees being fulfilled during the year through discussions of the full Board.

As of the date of this AIF, the Directors and officers of COTI as a group, beneficially owned, directly or indirectly, or exercised control or direction over 17,905,886 common shares of the Company, which represented 17.4% of the outstanding shares of the Company.

9.2 Corporate Cease Trade Orders, Bankruptcies, Penalties or Sanctions

To the best of the Company's knowledge, no Director, executive officer or shareholder holding a sufficient number of securities of the Company to materially affect the control of the Company is, or within the 10 years prior to the date hereof has been, a director or executive officer of any company that, while that person was acting in that capacity (i) was the subject of a cease trade order or similar order or an order that denied the company access to any exemption under securities legislation for a period of more than 30 consecutive days, (ii) was subject to an event that resulted, after the director or executive officer ceased to hold such position, in the other company being the subject of a cease trade or similar order or an order that denied the company access to any exemption under securities legislation for a period of more than 30 consecutive days, or (iii) within a year of that person ceasing to act in that capacity, was declared bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets, other than Mr. Maruzzo as described below.

To the best of the Company's knowledge, no Director or executive officer of the Company, or any shareholder holding sufficient securities of the Company to affect control materially of the Company has:

(a) within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold that person's assets;

(b) been subject to any penalties or sanctions imposed by a court relating to Canadian securities legislation or by a Canadian securities regulatory authority or has entered into a settlement agreement with a Canadian securities regulatory authority; or,

(c) been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor making an investment decision.

Mr. Maruzzo was a director of CCPC Biotech Inc. (TSX: CBO), which was subject to a cease trade order issued by the Alberta Securities Commission on July 19, 2002 for failure to file required financial information and a similar order issued by the British Columbia Securities Commission on September 4, 2002. Trading of the company's shares remained suspended until the company was delisted on November 19, 2003. The management information circular of CCPC Biotech Inc., dated February 27, 2004, refers to the company's financial difficulties resulting in part from unauthorized advances from the company to its CEO, who later declared personal bankruptcy. The company was voluntarily dissolved on December 16, 2004.

9.3 Conflicts of Interest

The Company is not aware of any existing material conflicts of interest between the Company and any Director or officer of the Company, nor is it aware of any potential conflicts of interest other than as set out below.

Certain Directors and officers of the Company currently, or may in the future, act as directors or officers of other companies and, consequently, it is possible that a conflict will arise between their duties as a director or officer of COTI and their duties as a director or officer of such other company. There is no certainty that while performing their duties for the Company, that the Directors or officers will not be in situations that could give rise to conflicts of interest, nor is there any certainty that any such conflict, if it arises, will be resolved in favour of COTI. However, the Directors are required by law to act honestly and in good faith with a view to the best interests of the Company and its shareholders and to disclose any personal interest that they may have in any material transaction that is proposed to be entered into with the Company and to abstain from voting as a Director for the approval of any such transaction.

10.0 PROMOTERS

Within the two most recently completed financial years, or during the current financial year, no person or company had been a promoter of the Company.

11.0 LEGAL PROCEEDINGS AND REGULATORY ACTIONS

COTI was not a party to, or subject to, any legal proceedings during the year either directly or indirectly. The Company does not contemplate any legal proceedings on its part and is not aware if any other party contemplates any such proceedings.

The Company was not involved in any actions before a securities regulatory authority, a court or other regulatory body during the most recently completed financial year and has not incurred any penalties or sanctions nor been involved in any settlement agreements.

12.0 INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

The transactions in which directors or executive officers of COTI or any of their respective associates or affiliates, had any material interest, directly or indirectly, in any material transaction with COTI within the three years preceding the date of this AIF are set out below.

12.1 Participation in 2012 Private Placement

In April 2012, the Company completed an equity private placement in three tranches. Under the private placement, the Company issued 11,250,000 units consisting of one common share and one common share purchase warrant at $0.16 per unit for gross proceeds of $1,800,000. Each common share purchase warrant was exercisable into one common share at a price of $0.30 for 18 months following the closing date of each tranche. Insiders of the Company participated in the private placement on the same terms and conditions as non-insiders to the private placement. The details of this participation in the financing on a gross proceeds basis are summarized in Table 17.

Table 17: Insider Participation in 2012 Private Placement

Participants	Units	Gross Proceeds	% of Private Placement
Insiders	837,500	$ 134,000	7.44%
Non-insiders	10,412,500	1,666,000	92.56%
	11,250,000	$ 1,800,000	100.00%

12.2 Participation in 2013 Private Placement

In January 2013, the Company completed an equity private placement and issued 3,605,258 units at a price of $0.14 per unit for gross proceeds of approximately $504,376. Each unit consisted of one common share and one common share purchase warrant with each warrant exercisable into one additional common share at a price of $0.26 for 18 months following the closing date of each tranche. Insiders of the Company participated in the private placement on the same terms and conditions as non-insiders to the private placement. The details of this participation in the gross proceeds of the financing are summarized in Table 18.

Table 18: Insider Participation in 2013 Private Placement

Participants	Units	Gross Proceeds	% of Private Placement
Insiders	697,100	$ 97,594	19.34%
Non-insiders	2,908,158	407,142	80.66%
	3,605,258	$ 504,736	100.00%

12.3 Contingent Consideration Acquisition of DDP Therapeutics

In November 2007, the Company completed an acquisition from Whippoorwill Holdings Limited, 2080084 Ontario Inc., and Dr. Wayne Danter of all the outstanding common shares in the capital of 3015402 Ontario Inc. (formerly 6441513 Canada Inc.) operating as DDP Therapeutics (DDP) not already owned by the Company and the purchase of two 5% promissory notes owing by DDP to two of the

Sellers. Ownership of DDP prior to completion of the Share Purchase consisted of: COTI 10%, Dr. Wayne Danter, President of COTI, 10%; Whippoorwill Holdings Limited, a wholly owned company of Mr. John Drake, then the CEO and currently Chairman of COTI, 40%; and 2080084 Ontario Inc., an unrelated party, 40%.

Upon the purchase, the Company became contingently liable for the issuance of 1,431,441 common shares as part of the purchase consideration should certain development milestones be subsequently achieved by any molecule from the small cell lung cancer library (Molecule) acquired under the purchase (Contingent Consideration). One-half of this Contingent Consideration was payable upon the first occasion any Molecule achieved one of the following milestones:

a) when the Company is given notification of acceptance of an IND filing and an IND acceptance number is received; or,

b) when either the US or the European patent authorities issue the Company a final patent.

The second half of this Contingent Consideration is payable upon any Molecule achieving both milestones.

If by November 27, 2015, the eighth anniversary date of the transaction, these milestones are not achieved and the Contingent Consideration not paid, and if the Company has not abandoned its efforts to develop and commercialize the Molecules by this anniversary date, the Company is required to:

a) issue the Contingent Consideration of 1,431,441 common shares at fair value; or,

b) pay cash consideration equal to the amount by which the fair value of the Molecules purchased in the transaction exceed the amount invested in the Molecules by the Company. If the fair value of the Molecules purchased in the transaction is less than the amount invested in the Molecules by the Company, no Contingent Consideration is payable.

In fiscal 2012, the Company received a U.S. patent for a Molecule, COTI-2, that represented the achievement of one of the milestones. Accordingly, on October 12, 2011, the Company issued 715,720 common shares as payment for one-half of the contingent consideration. The common shares issued had a market value of $164,616 based upon the closing market price of the Company's shares on October 11, 2011.

It is the Company's plan to move COTI-2 along through completion of the final toxicity studies and the preparation of an IND filing on such a timeline as to file the IND with the FDA in the early autumn of 2014. The timing of receipt or whether an IND approval will be granted is not certain. The Company believes its scientific data package to be submitted in the IND strongly supports the approval to commence human trials. Approval of an IND application generally occurs two-three months from the date of filing. Accordingly, the Company anticipates this approval by the end of calendar 2014 assuming submission of the IND application by the end of September.

In its annual financial statements for April 30, 2014, the Company determined that the achievement of the IND milestone by COTI-2 does not meet the guidance for recognition provided in International

Accounting Standard 37 – Provisions, which states that where an event is "more likely than not" to occur such event should be recognized. Major factors considered in this likelihood determination included: the Company's current financial capacity to develop COTI-2 successfully through to achieving this milestone, the cost, time and expertise required in the IND application; the uncertainty inherent in the remaining testing for COTI-2 prior to filing an IND application; and finally, the inherent risk in the approval process itself that the IND application will be approved by the FDA. The inability to meet the more likely than not criteria would apply to any of the other Molecules based upon the significant cost and timeline in advancing them through both milestones.

Should COTI-2 obtain an IND approval during fiscal 2015, the fair market value of the consideration paid will be added to the cost of the Molecules (intangible asset) with an increase in share capital if payment issued as share consideration, or a reduction in cash if a cash payment at the date of such approval being received.

The value of the Contingent Consideration issuable upon COTI-2 achieving the IND milestone or upon the eighth anniversary date of the transaction is not determinable at this time as it is based on the fair values in effect at the time such consideration becomes payable.

12.4 Executive Management Consulting Agreement

The Company entered into a one year executive management consulting services agreement ("Agreement") with one of its Directors, Dr. Brent Norton, effective June 1, 2011. This Agreement was renewed on June 1, 2012 and again on June 1, 2013. The Agreement terminated on December 31, 2013 by mutual consent. Under the Agreement, Dr. Norton was paid a daily rate for invoiced time as services were provided. He was also entitled to certain cash bonuses based upon his material contribution to the Company achieving certain objectives. Also under the Agreement, Dr. Norton was granted share options as part of his compensation package. The details of amounts paid under the Agreement during the three year period are summarized in Table 19 below.

Table 19: Summary of Consulting Compensation

Fiscal Year	Consulting Fees	Cash Bonuses	Total Cash Payment	Options Granted	Option Exercise Price	Share-based Compensation Value of Options
2012	$ 169,934	$ 33,220	$ 203,154	200,000	$0.35	$ 25,400
2013	$ 180,734	Nil	$ 180,734	200,000	$0.14	$ 17,800
2014	$ 89,584	Nil	$ 89,854	200,000	$0.24	$ 25,750

Options granted vested quarterly and had a five-year life.

12.5 Share Option Amendments

At the Company's 2013 AGM held on December 5, 2013, an amendment was made related to share options granted to Directors who were not standing for re-election at the AGM. The amendment revised the expiry date of options held by these members of the Board to be the earlier of (i) April 30, 2015 or (ii) the original expiry date of such options. This amendment related to 2,204,800 share options held by four former directors with exercise prices ranging from $0.15 to $0.90 that would have otherwise had a forced expiry date 90 days following their end of service on the Board under the terms of the Company's SOP.

In February 2014, 294,566 of the options held by these former directors exercisable at $0.90 per share expired. In June 2014, 385,192 options held by one of these former directors were exercised at an average exercise price of $0.1623 for gross proceeds to the Company of approximately $62,500.

12.6 Warrant Amendments

During each of the fiscal years 2012-2014, the Company amended the expiry date of outstanding warrants as they approached their expiry date (see 7.3 Warrants to Purchase Common Shares). Prior to the amendments each of the warrant issuances had 18 month terms. These amendments related to warrants issued from private placements occurring in the period fiscal periods of 2010-2012 that would have otherwise expired. Insiders of the Company participated in the private placements resulting in the issuance of these warrants on the same terms and conditions as non-insider investors. In addition to amending the life of the warrants, the Company also put in place exercise price triggers for each issuance as a condition for having made the amendment.

13.0 TRANSFER AGENT AND REGISTRAR

COTI's registrar and the transfer agent for its common shares in Canada is:

Computershare Investor Services Inc.
Suite 600, 530 8th Avenue SW
Calgary, Alberta T2P 3S8
Tel: 403-267-6800
Fax: 403-267-6529

14.0 MATERIAL CONTRACTS

No material contracts have been entered into by COTI other than contracts entered into in the ordinary course of business.

15.0 THE AUDIT COMMITTEE AND AUDITORS

A summary of the membership, responsibilities, and activities of the Audit Committee ("Committee") is set out below. The Company has adopted a Charter for the Audit Committee, a copy of which is attached as Schedule "A".

15.1 Composition of the Audit Committee

Table 209 sets out the members of the Audit Committee and their qualifications for this role.

Table 20: Audit Committee Membership and Qualifications

Director	Relationship	Financially Literate [(1)]
Douglas Alexander, CA - Chair	Independent [(1)]	Yes
Bruno Maruzzo, MBA	Independent [(1)]	Yes
Dave Sanderson, LLB	Independent [(1)]	Yes

Note:

[(1)] As defined in NI 52-110.

15.2 Relevant Education and Experience

The members of the Committee are each experienced senior business executives. Mr. Alexander is a member of the Institute of Chartered Accountants of Ontario. Mr. Maruzzo and Mr. Sanderson do not have formal accounting designations, however, both have many years of experience in evaluating financial statements that present a breadth and level of complexity of accounting issues generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Company's activities. Based on their experience, each member has an understanding of the accounting principles used by the Company to prepare its financial statements, the ability to assess the general application of such accounting principles in connection with the accounting for estimates, accruals, and reserves by the Company and an understanding of internal controls and procedures for financial reporting. Each of the members of the Committee have been involved actively at a supervisory level in the financial and accounting management of companies and have demonstrated ability to address financial and accounting issues.

15.3 Audit Committee Oversight

At no time since the commencement of the Company's most recently completed financial year was a recommendation of the Committee to nominate or compensate an external auditor not adopted by the Board.

15.4 Non-Reliance on Certain Exemptions

At no time since the commencement of the Company's most recently completed financial year has the Company relied on the exemptions provided in National Instrument ("NI") 52-110. These include: Section 2.4 De Minimus Non-audit Services, Section 3.2 Initial Public Offerings, Section 3.4 Events Outside Control of Member, Section 3.5 Death, Disability or Resignation of Audit Committee Member and an exemption from NI 52-110, in whole or in part, granted under Part 8 of NI 52-110.

15.5 Pre-Approval Policies and Procedures

The Committee has established an Auditor's Engagement Services Policy setting out the services that the independent auditor is permitted to perform, which are pre-approved by the Committee in accordance with the Committee's policy. Any services not covered under the Engagement Services Policy must receive specific pre-approval before engagement may commence. The policy also sets out those specific services or activities that the auditor is not permitted to perform and for which approval would not be granted.

15.6 Auditor

The auditor for the Company is:

KPMG LLP
Chartered Accountants & Licensed Public Accountants
Suite 1400, 140 Fullarton Street
London, Ontario N6A 5P2

15.7 External Auditor Service Fees

The aggregate fees billed by the Company's external auditor in each of the last two fiscal years are set out in Table 21.

Table 21: Two Year Auditor Fees Summary

Financial Year Ending	Audit Fees	Audit Related Fees [1]	Tax Fees [2]	All Other Fees [3]	Total Fees
April 30, 2014	$59,325	$6,995	$5,400	$7,850	$79,570
April 30, 2013	$57,750	$1,100	$2,525	$16,403	$77,778

Notes:

(1) The Audit Related Fees in fiscal 2014 primarily reflect an additional billing for the 2013 fiscal year end audit approved by the Audit Committee in December 2013. The balance is consistent with 2013 fees and relates to the Canadian Public Accounting Board ("CPAB") audit participation fee of 2% that all audited companies are required to pay as collected by the auditor on behalf of CPAB.

(2) Tax Fees relate to sundry income tax inquiries and support for the filing of the Company's annual income tax and investment tax credit returns.

(3) All Other Fees in fiscal 2013 related to a process documentation project wherein the management consulting group of KPMG LLP provided editorial, process oversight and technical format guidance on the preparation of a formal procedures manual prepared to document the Company's CHEMSAS® drug discovery process. In fiscal 2014, these costs related to accounting and tax support on two potential transactions the Company was considering during the year that were not completed.

16.0 INTERESTS OF EXPERTS

KPMG LLP, Chartered Professional Accountants and Licensed Public Accountants, who provided the auditor's report accompanying the Company's annual financial statements in respect of fiscal 2014, has confirmed to the Company that KPMG LLP is independent in accordance with the Rules of Professional Conduct as outlined by the Chartered Professional Accountants of Ontario.

17.0 ADDITIONAL INFORMATION

Additional information, including directors' and officers' compensation, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans, is contained in the Company's Information Circular for its most recent AGM that involved the election of directors of December 5, 2013. Additional financial information is also available from the Company's interim and annual financial statements and interim and annual management discussion and analysis for the most recently completed and prior financial years.

Copies of the above and other disclosure documents, and additional information relating to the Company, may be found, examined, and/or obtained through the internet by accessing the Company's profile on the SEDAR website at www.sedar.com.

Schedule "A"

AUDIT COMMITTEE CHARTER
Amended July 24, 2012

1. PURPOSE

The Audit Committee is a committee of the Board of Directors of Critical Outcome Technologies Inc. (the "Corporation") established to assist the Board of Directors in fulfilling its oversight responsibilities for the accounting and financial reporting processes of the Corporation and audits of the Corporation's financial statements by carrying out the activities described in this Charter in the manner detailed by this Charter.

2. COMMITTEE MEMBERSHIP

(a) The Board of Directors, immediately upon their election by the shareholders of the Corporation, shall appoint an Audit Committee to serve for the forthcoming year. Each member of the Audit Committee shall serve at the pleasure of the Board of Directors until the member resigns, is removed or ceases to be a director of the Corporation.

(b) The Audit Committee shall consist of not less than three directors, none of whom shall be officers or employees of the Corporation or any of its affiliates.

(c) The Board of Directors shall designate a member of the Audit Committee to serve as Chairman.

(d) Each member of the Audit Committee shall:

(i) be a member of the Board of Directors of the Corporation;

(ii) be independent according to the definition of independence applicable to members of audit committees under National Instrument 52-110 ("NI 52-110") entitled "Audit Committees" of the Canadian Securities Administrators, unless otherwise approved by the Board of Directors in accordance with NI 52-110; and

(iii) have the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Corporation's financial statements, unless the financial statements are otherwise approved by the Board of Directors in accordance with NI 52-110.

(e) The Chief Financial Officer of the Corporation shall act as secretary of the Audit Committee.

3. MEETINGS

(a) Meetings of the Audit Committee shall be held at least four times a year. The meetings will be scheduled to permit timely review of the Corporation's interim and annual financial statements.

(b) Additional meetings of the Audit Committee may be called by the Chairman, any member of the Committee or the external auditors of the Corporation.

(c) Not less than 72 hours' notice of meetings of the Audit Committee shall be given by the Chief Financial Officer together with any meeting materials, unless waived by all members of the Audit Committee.

(d) Meetings of the Audit Committee may be held by means of conference telephone.

(e) A resolution signed by all members of the Audit Committee shall be as effective as if passed at a meeting of the Audit Committee that was duly called and held.

4. REPORTING

(a) The Chief Financial Officer will arrange for the preparation of minutes of the meetings of the Audit Committee in sufficient detail to convey the substance of all discussions held.

(b) The Chairman may report orally to the Board on any matter in his/her view requiring the immediate attention of the Board.

5. RESPONSIBILITIES

In fulfilling its responsibilities, the Audit Committee shall:

(a) review the Corporation's annual and interim financial statements and Management Discussion and Analysis prior to public disclosure of such information by the Corporation;

(b) review the annual and interim earnings press releases, and any other press releases containing financial information related to earnings, prior to public disclosure of such information by the Corporation;

(c) satisfy itself, on behalf of the Board of Directors, that adequate procedures are in place for the review of the Corporation's public disclosure of financial information extracted or derived from the Corporation's financial statements (other than the public disclosure referred to in (a) above) and periodically assess the adequacy of such procedures;

(d) satisfy itself, on behalf of the Board of Directors, that the Corporation's annual financial statements are fairly presented in accordance with International Financial Reporting Standards (“IFRS”), and recommend to the Board whether the annual financial statements should be approved;

(e) satisfy itself, on behalf of the Board of Directors, that the Corporation's interim financial statements are fairly presented in accordance with IFRS and, approve such interim financial statements on behalf of the Board of Directors as appropriate;

(f) satisfy itself, on behalf of the Board of Directors, that the information contained in the Corporation's Annual Report to Shareholders and other financial publications such as Management's Discussion and Analysis, the Annual Information Form, if applicable, and the information contained therein is fairly presented in all material respects;

(g) satisfy itself, on behalf of the Board of Directors, that the Corporation has implemented appropriate systems to identify, assess and mitigate significant business risks;

(h) satisfy itself, on behalf of the Board of Directors, that the Corporation has implemented appropriate systems of internal control over financial reporting (which may include an internal audit function) and that these are operating effectively;

(i) satisfy itself, on behalf of the Board of Directors, that the Corporation has implemented appropriate systems of internal control to ensure compliance with legal, regulatory and ethical requirements;

(j) establish procedures, for the receipt, retention and treatment of complaints received by the Corporation, if any, regarding accounting, internal accounting controls or auditing matters;

(k) establish procedures for the confidential, anonymous submission by employees of the Corporation of concerns, if any, regarding questionable accounting or auditing matters;

(l) satisfy itself, on behalf of the Board of Directors, that the external audit function has been effectively carried out and that any matter which the independent auditors wish to bring to the attention of the Board has been addressed; and,

(m) at least once per year, meet with the external auditors and management in separate sessions to discuss any matters that these groups believe should be discussed with the Audit Committee or that the Audit Committee believes should be discussed with these groups.

6. RELATIONSHIP WITH AUDITORS

(a) The Audit Committee shall recommend to the Board of Directors the external auditor to be nominated for appointment at the Corporation's annual meeting for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Corporation.

(b) The Audit Committee shall satisfy itself, on behalf of the Board of Directors, that the external auditor is "independent" in accordance with applicable laws and regulatory requirements.

(c) The Audit Committee shall recommend to the Board of Directors the compensation of the external auditor.

(d) The external auditor is required to report directly to the Audit Committee and the Audit Committee has the authority to communicate directly with the external auditor.

(e) The Audit Committee shall be directly responsible for overseeing the work of the external auditor engaged for the purpose of preparing or issuing an auditors' report or performing other audit, review or attest services for the Corporation, including the resolution of disagreements between management and the external auditor regarding financial reporting.

(f) The Audit Committee shall review and approve the Corporation's hiring policies regarding current and former partners and employees of the current and former external auditor of the Corporation.

7. PRE-APPROVAL OF NON-AUDIT SERVICES

(a) The Audit Committee shall pre-approve all services to be provided to the Corporation or its subsidiaries by the external auditor at a cost to the Corporation, individually or in aggregate, of $25,000 or more, other than the professional services rendered by the external auditor for the audit and review of the Corporation's financial statements or services that are normally provided by the external auditor in connection with statutory and regulatory filings or engagements.

(b) In addition to the Pre-approval threshold amount noted in (a), the pre-approval requirement is also satisfied where:

(i) the Audit Committee delegates authority to pre-approve non-audit services to one or more members, which pre-approval must be presented by the member(s) to the full Audit Committee at its next scheduled meeting; or,

(ii) the Audit Committee adopts specific policies and procedures for the engagement of non-audit services provided that: (i) the pre-approval policies and procedures are detailed as to the particular service, (ii) the Audit Committee is informed of each non-audit service, and (iii) the procedures do not include delegation of the Audit Committee's responsibilities to management.

8. AUTHORITY TO ENGAGE EXTERNAL ADVISORS

The Audit Committee has the authority to engage independent counsel and other advisors as it determines necessary to carry out its duties and to set and have the Corporation pay the compensation for such advisors.