**Sona Nanotech Inc.**
**Management Discussion and Analysis**
**Six-months ended April 30, 2020**

*This Management Discussion and Analysis ("MD&A") provides a review of the performance of Sona Nanotech Inc. ("Sona" or the "Company") and should be read in conjunction with the unaudited condensed interim financial statements (the "Financial Statements") of Sona for the six-month period ended April 30, 2020 and the audited financial statements for the years ended October 31, 2019 and 2018, which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").*

*The information presented in this MD&A is as of June 29, 2020. The reporting currency and functional currency for Sona is the Canadian dollar. All of the financial information presented herein is expressed in Canadian dollars, unless otherwise stated. This MD&A contains "forward-looking statements" that are subject to risk factors set out in a cautionary note contained herein. The reader is cautioned not to place undue reliance on forward-looking statements.*

## FORWARD-LOOKING STATEMENTS AND INFORMATION

This MD&A contains "forward-looking information", as such term is defined in applicable Canadian securities legislation. Forward-looking information is necessarily 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 which are reporting results as well as statements of historical fact set forth or incorporated herein by reference, are forward looking information that may involve a number of known and unknown risks, uncertainties and other factors, many of which are beyond Sona's ability to control or predict. Forward-looking information can be identified by the use of words such as "may", "should", "expects", "plans", "anticipates", "believes", "estimates", "predicts", "intends", "continue", or the negative of such terms, or other comparable terminology.

This information includes, but is not limited to, comments regarding:

- the development plans for the Company's gold nanoparticle products and associated services;
- the Company's business strategy;
- the Company's strategy for protecting its intellectual property;
- the Company's ability to obtain necessary funding on favorable terms or at all;
- the Company's plan and ability to secure revenues;
- the risk of competitors entering the market;
- the Company's ability to hire and retain skilled staff;
- the ability to obtain financing to fund future expenditure and capital requirements; and
- the impact of adoption of new accounting standards.

Although Sona believes that the plans, intentions and expectations reflected in this forward-looking information are reasonable, Sona cannot be certain that these plans, intentions or expectations will be achieved. Actual results, performance or achievements could differ materially from those contemplated, expressed or implied by the forward-looking information contained in this report. Disclosure of important factors that could cause actual results to differ materially from Sona's plans, intentions or expectations is included in this report under the heading *Risks and Uncertainties*.

Forward-looking information inherently involves risks and uncertainties that could cause actual results to differ materially from the forward-looking information. Factors that could cause or contribute to such differences include, but are not limited to, unexpected changes in business and economic conditions, including the global financial and capital markets; changes in interest and currency exchange rates; changes in operating revenues and costs; political or economic instability, either globally or in the countries in which Sona operates; local and community impacts and issues; labour disputes; environmental costs and risks; competitive factors; availability of external financing at reasonable rates or at all; and the other risk factors discussed in this MD&A under the

heading *Risks and Uncertainties*. Many of these factors are beyond Sona's ability to control or predict. These factors are not intended to represent a complete list of the general or specific factors that may affect Sona. Sona may note additional factors elsewhere in this MD&A. All forward-looking statements and information speak only as of the date made. All subsequent written and oral forward-looking statements attributable to Sona, or persons acting on Sona's behalf, are expressly qualified in their entirety by these cautionary statements. Readers are cautioned not to put undue reliance on forward-looking information due to the inherent uncertainty therein. Sona disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise.

## COMPANY OVERVIEW

Sona Nanotech Inc., (the "Company" or "Sona") and Sona Nanotech Ltd. ("Sona Nanotech"), a private company involved in the nanotechnology Life Sciences industry, entered into a definitive agreement dated March 22, 2018 to amalgamate the two companies to form Sona Nanotech Inc. The boards of directors of the Company and Sona Nanotech each unanimously approved the terms of the Amalgamation. Refer to note 3, *Transaction with Sona Nanotech Ltd,* in the audited financial statements for the year ended October 31, 2019 for details. The Company's corporate office is located at 1969 Upper Water Street, Suite 2001, Halifax, N.S., Canada, B3J 3R7. The research and development office is located at 1 Research Drive, Bay 2, Dartmouth, N.S., Canada, B2Y 4M9. The registered office of Sona is located at Suite 1750, 1185 West Georgia Street, Vancouver, B.C., Canada, V6E 4E6.

The Company's Board of Directors, upon approval by written consents of a majority of the minority shareholders of the predecessor company, Stockport Exploration Inc., made the decision to voluntarily delist from the TSX Venture Exchange ("TSXV") and list on the Canadian Securities Exchange ("CSE"). The Company received conditional listing approval from the CSE on July 27, 2018 subject to the completion of the transaction with Sona. The Company's common shares were voluntarily delisted from the TSXV on August 7, 2018. The amalgamation of its predecessor companies, Stockport Exploration Inc. and Sona Nanotech Ltd., to form "Sona Nanotech Inc." as a federally amalgamated corporation was completed, with shareholder approval, effective August 8, 2018. The Company completed a private placement of its common shares at $0.25 per share to raise gross proceeds of $2,000,000, by the issuance of 8,000,000 common shares. The Company submitted its final listing application to the CSE on September 28, 2018 and commenced trading on October 4, 2018 under the trading symbol "SONA". Effective April 8, 2020, the Company's common shares were approved for trading on the OTCQB Marketplace under the trading symbol "SNANF".

*Transaction with Sona Nanotech Ltd.*
Under the terms of the Amalgamation Agreement (the "Agreement") dated August 8, 2018, the shareholders of the Company received one common share of the amalgamated company for every four shares of the Company held and the shareholders of Sona Nanotech received one common share for every 1.5802 shares of Sona Nanotech held (collectively referred to as the "Transaction"). Upon completion of the Transaction, the Company changed its name to Sona Nanotech Inc. and the shareholders of the Sona Nanotech received a total of 22,036,216 common shares and the shareholders of the Company received a total of 22,163,247 common shares based on the amalgamation ratios.

In substance, the Transaction involves Sona Nanotech shareholders obtaining control of the Company. As the Company does not meet the definition of a business prior to the Transaction, the Transaction is outside the scope of IFRS 3, *Business Combinations*. The Transaction has therefore been accounted for under IFRS 2, *Share-based payment.* Under this basis of accounting, the financial statements of the combined entity will represent the continuation of Sona Nanotech by which Sona Nanotech acquired the net assets and listing status of the Company as of August 8, 2018. Accordingly, the Transaction will be considered a reverse takeover transaction ("RTO") with Sona Nanotech acquiring the Company.

The excess of the estimated fair value of the equity instruments that Sona Nanotech is deemed to have issued to acquire the Company, plus the transaction costs and the estimated fair value of the Company's net liabilities (collectively the "Consideration"), will be recorded as a charge to the listing fee expense as a cost of obtaining the

Company status as a Reporting Issuer. See note 3, *Transaction with Sona Nanotech Ltd.*, of the audited financial statements for the year ended October 31, 2019 for further details.

The Company adopted a financial year end of October 31st as a result of the closing of the Transaction.

*Operational overview*
In the last quarter of 2017, Darren Rowles was appointed as President and CEO of the Company. A commercially-minded scientist, Mr. Rowles joined Sona with 14 years experience in the diagnostic and nanoparticle industry. He previously worked for one of the leading providers of technologies to the global diagnostics market, where he specialized in product manufacturing and development in the area of noble metal nanoparticles and lateral flow diagnostics. During his time there, he helped grow nanoparticle sales from $200,000 to $5.5 million with $4 million profit and introduced more than 15 new products to market. Mr. Rowles is a key opinion leader at industry seminars and conferences and acts as an Advisory Board Member to the World Gold Council.

Sona is the manufacturer of the Gemini™ and Omni™ Gold Nanorod ("GNR") product lines. Sona is the world's first company to develop the ability to synthesize high volumes of gold nanorods without the use of the cytotoxin, cetyltrimethylammonium bromide ("CTAB"). GNR products are ideally suited for in-vitro Diagnostics ("IVD") test products including lateral flow assays, enzyme-linked immunosorbent assays ("ELISA"), flow through assays and lab analyzers. In addition, Sona's gold nanorods have potential to be incorporated into disruptive emerging medical applications including targeted drug delivery, photothermal therapy and cell imaging.

In late 2018, the Company completed the relocation of its laboratory facilities to Halifax, NS as it seeks to capitalize on recent business success and further expand its business in the diagnostics market. Following this period of recent growth, the Company agreed to a three-year lease with Innovacorp for space at the Technology Innovation Centre on Research Drive.

**BUSINESS OBJECTIVE**

*Sona Powered Rapid Test Development Program*
Sona's primary objective will be the development and production of its own lateral flow tests utilizing Sona's unique gold nanotechnology as the core reagent to help drive better performance from the outset and minimize time to market. This next generation of assays will be easy to interpret, provide both qualitative and quantitative outputs with greater sensitivity and specificity and will be coupled with a data management system to collect, store, manage, track and share the associated test data to all stakeholders through app and cloud services.

Sona's enhanced products will also empower healthcare professionals and individuals to make better diagnostics decisions and take more control of their own health.

Sona's initial focus will be on the development of tests for emerging infectious diseases in humans and animals as well as novel and emerging areas of biomarker discovery that can be translatable into immunoassay formats.

Sona's approach to market entry involves direct selling to test buyers/consumers as well as targeting companies that have established and ubiquitous distribution network in place for sales of lateral flow assays.

Over the past year, Sona has identified a number of test applications in the marketplace that would benefit from the introduction of Sona GNR technology. Specifically, Sona believes its technology would produce a more rapid and accurate response than the tests currently used in the marketplace. The Company's product portfolio of other proprietary lateral flow tests will continue upon completion and commercialization of the Company's Covid-19 antigen test. These other tests leverage the Company's proprietary gold nanorod technology's highly sensitive ability to detect various biomarkers in the Pico gram range. Sona expects to announce progress on new tests during the remainder of 2020.

*Rapid Screening Test for Coronavirus*

Sona is deploying its proprietary nanotechnology in the development of a rapid screening test for the current coronavirus, ″Covid-19". Sona is developing a quick-response lateral flow test to screen patients for the Covid-19 virus. There are currently very limited lateral flow antigen tests specific to the Covid-19 strain of the coronavirus, which was first detected in Wuhan, Hubei Province, China and continues to spread across the globe. Sona will integrate its technology into a disposable lateral flow test platform (similar to pregnancy tests that can be administered without skilled technicians or additional laboratory equipment) for use as a screening tool to help triage individuals.

Currently, the majority of testing completed for the Covid-19 virus utilizes molecular based technology ("PCR"), a testing platform that typically costs more than $200 per test, frequently takes 2-4 hours to produce results, and requires specialized laboratory equipment and skilled technicians to operate. In comparison, lateral flow assays provide results between 5-15 minutes and are anticipated to cost less than $50.

The Company has an ongoing, open dialogue with regulators to ensure that Sona's test is being developed within the parameters regulators have outlined. This approach will allow Sona to be eligible for FDA review through their Emergency Use Authorization ("EUA") pathway and a fast-track to market.

On March 4, 2020, Sona and Cytiva (formerly GE Healthcare Life Sciences) announced that they will jointly complete test development of the Sona Covid-19 Coronavirus rapid-response lateral flow test. Sona will retain all commercial rights to the resulting test. The companies are working in parallel to complete the test prior to field testing. Cytiva will support Sona through their studies as they work to get their rapid-response Covid-19 lateral flow test introduced into markets as quickly as possible.

The Company is working with a consortium of international and Canadian partners to develop a functional Covid-19 rapid detection antigen lateral flow test that is expected to provide in-field test results in minutes, without the use of specialized laboratory equipment or technicians. The consortium includes Cytiva (formerly GE Healthcare Life Sciences), The Native Antigen Company, AffinityImmuno, Bond Digital Health, MRIGlobal and its Scientific Advisory Team.

*Development of Sona's Lateral Flow Test*

The Sona Covid-19 test currently in development will directly detect the Covid-19 virus, confirming active infection which we believe will result in the most accurate rapid-response test available. Some competitors are developing alternative Covid-19 rapid-response tests (serological assays) that detect increased levels of IgM and IgG antibodies (immune markers) in a patient sample. Patients infected with Covid-19 may produce increased levels of these markers, however, tests that are not specific to a Covid-19 infection will likely cross-react if a person is suffering from a recent infection (e.g. food poisoning, ear infection) or has an underlying health condition, leading to an incorrect result (false positive and false negatives). Patients most vulnerable to the Covid-19 virus include the elderly or those with underlying health conditions. The use of serological tests on this patient group is risky due to their susceptibility to common infections. A false negative may produce unintended outcomes that could result in a delayed patient intervention and treatment. Further, the use of alcohol, recreational drugs and certain medications can also interfere with test results, increasing the likelihood of false negatives.

Sona's proprietary test is intended to address the shortcomings and issues present with other testing methodologies. The Company cautions that its test is still in development but expects to complete a functional prototype and confirm third party validation tests in the near future.

When complete, the Sona Covid-19 rapid screening test could be ideal for use in a variety of scenarios, such as:

- To identify if patients require further testing or treatment in a clinical setting,
- To verify if patients are ready for release from quarantine and
- To screen individuals prior to entering closed public venues such as cruise ships and airplanes.

*Analytical & Clinical Validation Studies*
In late May 2020, the Company engaged MRIGlobal, a leading applied scientific research organization, to provide analytical and clinical validation studies for Sona's Covid-19 rapid detection, point-of-care, antigen test which will be used for submission to Health Canada for regulatory approval and the FDA for Emergency Use Authorization (EUA). MRIGlobal has three ISO 9001, CLIA certified, and FDA compliant BSL-3 laboratories located throughout the United States and works with government and corporate clients from around the world.

The project work is taking place in MRIGlobal's Kansas City laboratories and is assessing Sona's test using live SARS-CoV-2 virus following its past, successful internal evaluation using gamma irradiated virus. The EUA studies will follow the FDA's guidance for antigen testing, including assessments for sensitivity, specificity, cross-reactivity and interfering substances using patient samples and contrived (live viral culture) samples. The results of this assessment will be included as part of the Company's regulatory submissions to Health Canada and the FDA for EUA approval. The Company expects to benefit from the regulatory relief offered by the FDA to expedite the availability of diagnostics associated with the Covid-19 disease, subject to certain conditions.

*Manufacturing Service Agreements*
The Company entered into service and supply agreements with a contract manufacturing organization (CMO) in Europe for the manufacture of its Covid-19 virus-detecting, rapid-response test. The manufacturing service and supply agreements are firm commitments requiring the Company to fund the manufacturing set-up and transfer its test technology for the purposes only of test kit manufacturing.

The Company also signed a second memorandum of understanding to manufacture its test with a contract manufacturer. The agreement with a North American based manufacturer should simplify the supply chain and provide added capacity to the existing agreement with its European based supplier. The Company has begun technology transfer activities in order to prepare for manufacturing run set-up.

*Future sales – Letters of Intent*
The Company entered into a letter of intent agreement with an international distributor representing the health authority of a G20 country for the purchase of 2,000,000 test kits. The Company also entered non-binding letters of intent for an additional 2,700,000 of the Company's antigen detecting, rapid-response test. These letters of intent for a sale represent an expression of interest between the parties to supply the Company's tests at a price to be agreed in good faith following validation of the test and confirmation of manufacturing economics.

The Company continues to caution that its test is still in development but expects to complete a functional prototype and confirm third party validation tests in the near future.

*Funding - Next Generation Manufacturing Canada*
On March 31, 2020, Sona announced that it has been awarded a $4.1 million grant from Canada's Next Generation Manufacturing ("NGen"), Canada's Advanced Manufacturing Supercluster, to develop and commercialize its Covid-19 rapid-response antigen test. This non-repayable grant is being used to accelerate the development of a prototype and scale manufacturing capabilities with a view to deploying this Covid-19 virus-detecting, point-of-care test with Canadian and international medical authorities.

The Supercluster funding is pursuant to a $50 million initiative led by NGen to support companies as they prepare to produce critically needed technologies, equipment, and medical products to aid in the fight against Covid-19. As at April 30, 2020, the Company has received advance funding $1,825,000 and incurred expenditures of $600,610. Since April 30, 2020, the Company has received an additional $1,683,376 and incurred additional expenditures in excess of $2.5 million.

NGen continues to play a valuable role in project funding, enabling the acceleration of the development, and enhancing the scope of the Company's project to deploy its proprietary gold nanorod technology towards a credible, easy to use, rapid-response, point-of-care Covid-19 test that can be used to reduce the strain on testing laboratories and enhance the capacity of health care systems. NGen's involvement has also helped to bring other Canadian suppliers and partners to the Company's efforts.

NGen leads Canada's Advanced Manufacturing Supercluster, managing $230 million in funding from the Government of Canada to leverage Canada's manufacturing and technology strengths to build world-leading advanced manufacturing capabilities. There is no more important priority for manufacturers across Canada today than to respond to Covid-19. NGen is targeting enhanced funding for companies that can scale-up production of critical supplies in response to the COVID-19 crisis and secure their supply chains given the likelihood of future global disruptions.

*Patent Applications*
Sona filed an International (PCT) Patent Application on November 2, 2018, with a priority date of November 4, 2017, to protect its core gold nanorod technology. Patent protection is now being pursued in Australia, Canada, China, Europe, India, Japan, Korea and the United States based on the International (PCT) Patent Application. Upon issuance, the patents are expected to expire no earlier than November 2038 and will provide patent protection for Sona's gold nanorod technology.

*Other Technical Partnerships*
Activity will continue with third party companies looking at generating their own next generation of assays and are keen to integrate Sona's nanotechnology into their new and existing tests. By utilizing Sona's gold nanorods in their existing products, firms will be able to transform their platforms by incorporating modern diagnostic techniques with broad applications across multiple diagnostic segments, ranging from human health conditions, antimicrobial resistance, animal health, and infectious diseases.

Throughout 2018 and 2019, the focus of the Company was to establish technical partnerships to enhance Sona's offering to the lateral flow market, create a distribution network that will service the Life Science and nanotechnology markets with Sona's products, establish a new research and development ("R&D") facility that allows the Company to grow and serve the highly regulated markets in which it operates.

In October 2018, the Company entered an agreement with Expedeon Ltd ("Expedeon"), a global biotech company, for the supply of Sona's unique gold nanorods for integration into Expedeon's product range. Expedeon has exclusive rights to promote and market the nanorods to life science researchers and diagnostic companies around the world through its extensive distribution network and strong direct sales channels. Expedeon will invest in R&D to incorporate Sona's technology into its comprehensive product range coupled with its own proprietary technologies. Expedeon was acquired by Abcam plc in early 2020.

In August 2019, the Company entered a commercial agreement with Expedeon to address limitations in development of complex, multiplex point-of-care ("POC") lateral flow assay ("LFA") diagnostic tests. Under the terms of the agreement, Expedeon will provide gold nanoparticle, bioconjugation technologies and expertise and the Company will offer its LFA development services, leading to immediate and ongoing revenue generation. The collaboration will enable the rapid development of more complex/multiplex immunoassays into LFAs, from proof of principle, through scale-up and transfer to manufacturing and will further expose Sona to Expedeon's global customer base.

*Debt and Note Payable Settlement for Shares*
On July 16, 2019, the Company arranged a debt settlement of $799,953 in amounts owed to certain non-arm's length creditors, previously included in accounts payable to related parties in the financial statements of Sona (the "Debts"). The Debts were settled in full by the issuance to these creditors of an aggregate of 3,199,812 common shares at a deemed price of $0.25 per share. On the conversion date, the share price was $0.25 per common share. The Company also arranged a debt conversion of $137,093 in debt owed to an arm's length creditor as shown in the financial statements of Sona (the "Convertible Debt"). The Convertible Debt was settled in full based on its conversion price of $0.158 per share resulting in the issuance of 867,677 common shares to the debt holder. All of these shares were subject to resale restrictions prohibiting resale for a period of four months and a day from their date of issue.

Effective December 31, 2019, the Company retired its Convertible Notes and the corresponding accrued interest through the issuance of common shares. 2,520,270 common shares were issued at the Conversion Price of $0.20

per share to repay the total Convertible Notes and accrued interest of $504,054 as at the date of conversion. On the conversion date, the share price was $0.125 per common share. Of the common shares issued, 1,665,942 common shares were issued to related parties of the Company with a value of $333,188. Costs associated with the conversion were legal fees of $2,279. $42,000 of the Equity Portion of Convertible Debt was reclassified to Share Capital as of the date of the Note conversion.

## SELECTED ANNUAL FINANCIAL INFORMATION

| | **Year ended October 31, 2019** | **Year ended October 31, 2018** | **Year ended October 31, 2017** |
|---|---|---|---|
| | **$** | **$** | **$** |
| Expenses | **(1,737,884)** | (1,182,427) | (536,223) |
| Other income (expenses) | **(783,825)** | (4,015,906) | 85,446 |
| Comprehensive loss for the year | **(2,521,709)** | (5,198,333) | (450,777) |
| Loss per common share | **(0.05)** | (0.19) | (0.03) |
| Cash dividends per common share | **-** | - | - |
| Total assets | **859,211** | 3,177,580 | 336,145 |
| Current liabilities | **1,214,835** | 2,435,322 | 962,024 |
| Long-term liabilities | **666,819** | 543,184 | 172,246 |
| Shareholders' equity | **(1,022,443)** | 199,074 | (798,125) |

## SELECTED QUARTERLY FINANCIAL INFORMATION

The following table sets out selected financial information and highlights for the last eight quarters:

| | **Apr 30, 2020** | Jan 31, 2020 | Oct 31, 2019 | Jul 31, 2019 | **Apr 30, 2019** | Jan 31, 2019 | Oct 31, 2018 | Jul 31, 2018 |
|---|---|---|---|---|---|---|---|---|
| | **$** | $ | $ | $ | **$** | $ | $ | $ |
| **Expenses** | | | | | | | | |
| Salaries and employee benefits | **167,342** | 117,560 | 125,827 | 130,817 | **137,248** | 135,009 | 117,205 | 92,671 |
| Professional and consulting fees | **106,353** | 41,586 | 91,158 | 91,554 | **90,171** | 103,620 | 84,396 | 82,963 |
| Management services | **57,000** | 57,000 | 57,000 | 57,000 | **57,000** | 57,000 | 58,000 | 54,000 |
| Research and development | **376,581** | (8,998) | 8,236 | 14,122 | **26,048** | 3,490 | 41,443 | 49,104 |
| Share-based compensation | **109,548** | 32,355 | 55,147 | 82,744 | **93,907** | 10,098 | – | – |
| Securities and regulatory | **57,580** | 8,605 | 12,458 | 16,290 | **9,394** | 9,938 | 26,806 | – |
| Other administrative | **78,373** | 59,420 | 84,229 | 73,328 | **55.409** | 49,642 | 59,967 | 47,114 |
| Recovery of project costs | **(424,120)** | – | – | – | **–** | – | – | – |
| | **(528,657)** | (307,528) | (434,055) | (465,855) | **(469,177)** | (368,797) | (387,817) | (325,852) |
| **Other income (expenses)** | | | | | | | | |
| Repayable government loans fair value adjustment | **(295,807)** | – | 75,534 | 14,236 | **50,419** | 53,889 | 40,945 | 37,038 |
| Scientific research tax credits | **–** | – | 7,010 | 49,816 | **18,000** | 7,000 | 45,000 | – |
| Interest expense | **–** | (7,395) | (11,153) | (13,154) | **(13,790)** | (14,153) | (14,245) | (3,000) |
| Accreted interest | **–** | (15,706) | (24,517) | (17,903) | **(26,656)** | (24,254) | (18,443) | (15,000) |
| Loss on debt settlement | **–** | – | – | (80,000) | **–** | – | – | – |
| Listing expense | **–** | – | – | – | **–** | – | (4,045,228) | – |
| Fair value adjustment on convertible debentures | **–** | – | – | – | **–** | – | (103,053) | – |
| Unrealized gain (loss) on investments | **(1,500)** | 1,000 | (1,500) | (1,000) | **500** | 1,000 | (2,000) | – |
| Loss on disposal of resource properties | **–** | – | – | (833,149) | **–** | – | – | – |
| | **(297,307)** | (22,101) | 45,374 | (881,154) | **28,473** | 23,482 | (4,097,024) | 19,038 |
| **Net loss for the quarter** | **(825,964)** | (329,629) | (388,681) | (1,347,009) | **(440,704)** | (345,315) | (4,484,841) | (306,814) |
| Loss per share – basic & diluted | **($0.01)** | ($0.01) | ($0.01) | ($0.02) | **($0.01)** | ($0.01) | ($0.01) | ($0.01) |

**Results of Operations for the six-month periods ended April 30, 2020 and 2019**

The Company reported a net loss for the six-month period ended April 30, 2020 of $1,155,593, or $0.02 per share, as compared to a net loss of $786,019, or $0.01 per share, for the six-month period ended April 30, 2019.

*Expenses*
During the current period, the Company incurred expenses of $1,260,305 before the recovery of project costs, an increase of $422,331, or 50%, from the $837,974 incurred in the comparable period. The increase is a result of higher securities and regulatory costs, which increased by approximately $47,000 due to costs associated with the Company obtaining its new OTC trading symbol during the current period, as well as research and development costs of $367,583 primarily associated with the Company's Covid-19 project. Professional fees decreased approximately $46,000 due to higher legal fees in the prior period as the Company incurred remaining costs associated with the Transaction. Salaries and employee benefits, as well as administration costs, were higher in the current period due to additional employees hired by the Company for work on its Covid-19 project. In addition, the Company increased its focus on sales and marketing, resulting in an increase of approximately $33,000 compared to the period ended April 30, 2019. Management service fees of $57,000 (2019 – $57,000) relate to consulting services provided by Numus Financial Inc.

Additions to property and equipment during the year ended October 31, 2019 resulting in higher depreciation expense during the current period, increasing from $22,280 for the period ended April 30, 2019 to $32,981 for the six-month period ended April 30, 2020.

In March 2020, the Company granted 1,100,000 stock options with an exercise price of $0.60 to directors, officers, employees, and consultants of the Company. In January 2019, the Company granted 1,410,000 stock options with an exercise price of $0.35 to directors, officers, employees, and consultants of the Company. The fair value of the March 2020 stock options was $653,713, and the fair value of the January 2019 stock options was $360,601. Options are valued using the Black-Scholes valuation model at the date of grant. The Company is amortizing the fair value of its stock options over the corresponding vesting period of 25% every six months. As a result, share-based compensation of $141,903 has been recorded for the period ended April 30, 2020, an increase of $37,898 over the period ended April 30, 2019.

The Company's Covid-19 project was initiated during the period ended April 30, 2020. Eligible costs associated with the project are offset by NGen funds received. During the current period, eligible expense recoveries of $600,610 were incurred, including research and development expenses of $424,120 and capital equipment costs of $176,490. All eligible costs are pre-approved by the NGen program. The Company's balance of restricted cash as of April 30, 2020 was $1,380,398, and eligible costs included in accounts payable as of April 30, 2020 were $156,008.

*Other income and expenses*
During the comparable period, the Company recorded $104,308 of other income relating to the fair value adjustment on the repayable government loans (the "ACOA loans") that relate to eligible costs incurred and claimed during the period. The Company recorded an expense of $295,807 during the current period, as the fair value of the ACOA loans has increased to $978,332 as of April 30, 2020. The value recorded in other income or expense results from the difference between the face value of the ACOA loans and the fair value of the ACOA loans. The fair value of the loans is determined using the present value of the projected repayment of the loan, based on a 3% - 5% royalty on the estimated gross product revenues. No ACOA loans were received during the current quarter. The Company recorded $15,706 (2019 - $32,910) of accreted interest on the ACOA loans for the period.

During the prior period ended April 30, 2019, the Company also recorded $18,000 of accreted interest on the convertible notes and $6,000 of interest on its convertible loans. The convertible notes were fully accreted during the year ended October 31, 2019, and the convertible loans were settled during the prior year. Interest of $7,395 (2019 - $21,943) was recognized on the Company's convertible notes prior to the settlement of the Notes during the period ended April 30, 2020.

**Results of Operations for the three-month periods ended April 30, 2020 and 2019**

The Company reported a net loss for the three-month period ended April 30, 2020 of $825,964, or $0.01 per share, as compared to a net loss of $440,704, or $0.01 per share, for the three-month period ended April 30, 2019.

*Expenses*
During the current period, the Company incurred expenses of $952,777 before the recovery of project costs, an increase of $483,600 from the $469,177 incurred in the comparable period. The increase is primarily due to costs associated with the Company's Covid-19 project. Salaries and benefits increased approximately $30,000 due to staff increases for research and development, as well as research and development expenses increasing approximately $351,000 over the prior year quarter. All eligible research and development costs were offset by the NGen grant. $424,120 was recorded as a recovery of project costs during the current quarter as an offset to these eligible costs, in addition to funds of $176,490 to offset eligible capital equipment additions.

The increase in the Company's expenses is also a result of higher securities and regulatory costs and professional fees, which increased during the current quarter due to costs associated with the Company obtaining its new OTC trading symbol in March 2020. Sona also increased its current period focus on sales and marketing, resulting in an increase of approximately $24,000 compared to the prior year period.

*Other income and expenses*
The Company recorded an expense of $295,807 resulting from the fair value adjustment to record the repayable government loans at face value (2019 – other income of $50,419). During the prior year quarter ended April 30, 2019, the Company recorded $17,656 of accreted interest on the ACOA loans.

During the quarter ended April 30, 2019, the Company also recorded $9,000 of accreted interest on the convertible notes and $3,000 of interest on its convertible loans. The convertible notes were fully accreted during the year ended October 31, 2019, and the convertible loans were settled during the prior year. Interest of $10,790 was recognized on the Company's convertible notes prior to the settlement of the Notes during the first quarter of the year. There were no convertible notes outstanding during the three-month period ended April 30, 2020.

**LIQUIDITY AND CAPITAL RESOURCES**

Sona's liquidity depends on existing cash reserves, supplemented as necessary by government loans and grants, and equity and/or debt financings. As of April 30, 2020, Sona had cash of $1,442,628 compared to $580,656 as at October 31, 2019. The Company's cash balance at April 30, 2020 includes restricted cash of $1,380,398 related to the NGen grant, of which $1,224,390 has been recorded as a current liability and $156,008 has been recorded in accounts payable and accrued liabilities on the Company's Statement of Financial Position at April 30, 2020. These funds are restricted to pre-approved eligible costs associated with the Company's Covid-19 project and cannot be used for the Company's day to day operational costs.

The negative working capital balance at April 30, 2020 was $1,618,896 as compared to the negative working capital balance of $596,793 at October 31, 2019. The decrease in working capital is primarily due to the revaluation of the ACOA loans from a long-term debt liability of $666,819 as of October 31, 2019 to a current liability of $978,332 as of April 30, 2020.

During the six-month period ended April 30, 2020, Sona used net cash of $907,909 to fund operating activities. NGen funds of $1,825,000 were received, of which $424,120 was incurred for eligible expenditures and $176,490 for capital equipment additions. Other capital equipment additions were nominal during the current period. The Company also received cash of $25,500 upon exercise of 127,500 stock options and $100,000 upon the exercise of 400,000 warrants during the current period. In addition, share issuance costs of $2,279 were incurred in association with the conversion of the Notes during the period.

Sona's business to date has been the research and development of its gold nanoparticle products. Sona has and continues to rely primarily on funding through the form of repayable government loans and debt, non-repayable government grants and proceeds from the issuance of common shares.

Liquidity risk is the risk that the Company will not meet its financial obligations as they become due. The Company has a planning and budgeting process to monitor operating cash requirements, including amounts projected for capital expenditures, which are adjusted as input variables change. These variables include, but are not limited to, the ability of the Company to generate revenue from current and prospective customers, general and administrative requirements of the Company and the availability of capital markets and government funding. As these variables change, it may necessitate the need for the Company to issue equity or obtain debt financing.

The Company is currently pursuing financing alternatives. However, there can be no assurance that additional future financings will be available on acceptable terms or at all. If the Company is unable to obtain additional financing when required, the Company may have to substantially reduce or eliminate planned expenditures. Sona expects to record losses until such time as it further develops its gold nanorod products and secures customers. See the *Risks and Uncertainties* section of this MD&A and note 2, *Basis of presentation and going concern,* of the audited financial statements for the year ended October 31, 2019 for additional details.

## COMMITMENTS AND CONTINGENCIES

The Company has an employment agreement with the Chief Executive Officer ("CEO") which provide that, should a change in control event occur, as defined in the employment agreements, the CEO will receive lump sum payments equal to six months of his then current base salary during the first two years of employment and 12 months of his then current base salary following the two year anniversary of the agreement.

## OFF-BALANCE SHEET ARRANGEMENTS

Sona has no off-balance sheet arrangements such as guarantee contracts, contingent interest in assets transferred to an entity, derivative instruments obligations or any obligations that trigger financing, liquidity, market or credit risk to Sona.

## OUTSTANDING SHARE INFORMATION

The Company has authorized an unlimited number of common shares without par value. As of April 30, 2020, the Company had 60,778,028 common shares outstanding. As of June 29, 2020, the Company had 60,845,528 common shares outstanding due to 67,500 stock options exercised subsequent to the end of the period.

As of April 30, 2020, the Company has 2,770,000 stock options outstanding at an average exercise price of $0.43 per common share with varying expiry dates. As of June 29, 2020, the Company has 2,702,500 stock options outstanding at an average exercise price of $0.43 per common share with varying expiry dates. 67,500 stock options were exercised subsequent to the end of the current period.

As of April 30, 2020 and June 29, 2020, there were 196,250 common share purchase warrants outstanding with an exercise price of $0.25 per common share and an expiry date of September 28, 2020.

## RELATED PARTY TRANSACTIONS

During the six-month periods ended April 30, 2020 and 2019, the Company incurred costs for service fees from a related party, Numus Financial Inc. ("Numus"), a company controlled by significant shareholders, including one Director of Sona, in the amount of $114,000 (April 30, 2019 – $114,000), controller services in the amount of $17,500 (April 30, 2019 - $15,000), and incurred rent and administrative costs from Numus in the amount of $15,300 (April 30, 2019 – $15,300). As at April 30, 2020, the amount owing to Numus was $261,188 (as at April 30, 2019 – $417,073).

As outlined in the Services Agreement ("Agreement") between Numus and the Company, dated October 31, 2018, if the Agreement is cancelled by the Company, a break fee of eighteen months of remuneration, being $342,000, will be payable to Numus, in addition to the service fees applicable for the 90 day notice period. If the Financial Controller services are cancelled by the Company, a break fee of six months of remuneration, being $15,000, will be payable to Numus, in addition to the Financial Controller services fee applicable for the 90 day

notice period. If the Office Services are cancelled by the Company with six months' notice to Numus, a break fee of six months of remuneration, being $15,300, will be payable to Numus.

In addition, Numus shall have a first right of refusal to act as an advisor on a Sona transaction for a fee of 1.25% of the value of the transaction and Numus, or its subsidiary, shall have a first right of refusal to act as an agent on all financings conducted by the Company.

As a result of the Transaction, the Company acquired convertible notes (the "Notes") of $295,000 with accrued interest of $146,255. Certain directors and significant shareholders of the Company contributed $195,000 towards the Notes financing. During the period ended April 30, 2020, the Company accrued related party interest of $4,888 on the Notes (year ended October 31, 2019 - $29,250). The Notes and all accrued interest were converted through the issuance of common shares effective December 31, 2019. 1,665,942 common shares with a value of $333,188 were issued to related parties pursuant to the Note conversion.

During the period ended April 30, 2020, the Company granted 1,100,000 stock options under the Company's stock option plan. 540,000 of the stock options were issued to directors and officers of Sona. The options are exercisable into one common share at a price of $0.60 per share and will vest at the rate of 25% every six month. The options expire on March 17, 2025.

During the year ended October 31, 2019, the Company had amounts owing to Brigus Capital Inc. ("Brigus"), a company controlled by a significant shareholder and former director of Sona. On July 16, 2019, $268,203 of the outstanding amount owing to Brigus was settled through the issuance of shares.

On July 16, 2019, $30,000 of the outstanding amounts owing to Randall Consulting Inc. ("RCI"), a company controlled by an officer of Sona, were settled through the issuance of shares. As at April 30, 2020, the amount owing to RCI was $47,537 (October 31, 2019 - $43,646).

As at April 30, 2020, an amount of $38,750 was also owing to a director of the Company.

## RISKS AND UNCERTAINTIES

*Limited Operating History and Continuing Losses*
The Company has a limited operating history and its business is subject to all of the risks inherent in the establishment of a new business enterprise. The Company's likelihood of success must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with establishing a new life science company.

The Company has incurred substantial losses since its inception, and it may not achieve profitability in the foreseeable future, if at all. Sona expects to incur net losses and negative cash flows due in part to increasing research and development expenses, marketing expenses and hiring additional personnel. As a result, Sona will need to generate significant revenues in order to achieve and maintain profitability. Sona may not be able to generate these revenues or achieve profitability in the future. Even if Sona does achieve profitability, it may not be able to sustain or increase profitability.

*Additional Funding Requirements*
From time to time, the Company may require additional financing in order to carry out its research and development and commercialization activities. Failure to obtain such financing on a timely basis could cause the Company to miss certain acquisition opportunities, delay or indefinitely postpone further research and development of its projects, with the possible loss of intellectual property rights, and curtail or terminate its operations. If the Company's future revenues decrease as a result of lower product margins or otherwise, it will affect the Company's ability to raise the necessary capital to replace its financial resources or to maintain its production. If the Company's cash flow from operations is not sufficient to satisfy its capital expenditure requirements, there can be no assurance that additional debt or equity financing will be available to meet these requirements or be available on favourable terms. The Company may issue securities on less than favourable

terms to raise sufficient capital to fund its business plan. Any transaction involving the issuance of equity securities or securities convertible into Common Shares would result in dilution, possibly substantial, to present and prospective holders of Common Shares.

*Intellectual Property Rights and Infringement*

Sona has pending applications for patents outstanding. The Company intends to continue to seek patent protection for, or maintain as trade secrets, all of its commercially promising nanotechnology platforms and technologies. The Company's success depends, in part, on our and our collaborative partners' ability to obtain and maintain patent protection for products and product candidates, maintain trade secret protection and operate without infringing the proprietary rights of third parties. Without patent and other similar protection, other companies could offer substantially identical products without incurring sizeable development costs which could diminish our ability to recover expenses of and realize profits on our developed products. If our pending patent applications are not approved, or if we are unable to obtain patents for additional developed technologies, the future protection for our technologies will remain uncertain. Furthermore, third parties may independently develop similar or alternative technologies, duplicate some or all of our technologies, design around our patent pending technologies or challenge our patents when issued. Such third parties may have filed patent applications, or hold issued patents, relating to products or processes competitive with those we are developing or otherwise restricting our ability to do business in a particular area. If we are unable to obtain patents or otherwise protect our trade secrets or other intellectual property and operate without infringing on the proprietary rights of others, our business, financial condition and results of operations could be materially adversely affected.

Third parties may claim we have infringed their patents, trademarks, copyrights or other rights. We may be unsuccessful in defending against such claims, which could result in the inability to protect our intellectual property rights or liability in the form of substantial damages, fines or other penalties such as injunctions precluding our manufacture, importation or sales of products. The resolution of a claim could also require us to change how we do business or enter into burdensome royalty or license agreements; provided, however, we may not be able to obtain the necessary licenses on acceptable terms, or at all. Insurance coverage may be denied or may not be adequate to cover every claim that third parties could assert against us. Even unsuccessful claims could result in significant legal fees and other expenses, diversion of management's time and disruptions in our business. Any of these claims could also harm our reputation. Any of the foregoing may have a material adverse effect upon our business and financial condition.

*Covid 19 Pandemic*

Since very early in 2020, the outbreak of the novel strain of coronavirus, specifically identified as "COVID-19", has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused material disruption to businesses globally resulting in an economic slowdown. Global equity markets have experienced significant volatility and weakness. Governments and central banks have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions. The duration and impact of the COVID-19 outbreak is unknown at this time, as is the efficacy of the government and central bank interventions. It is not possible to reliably estimate the length and severity of these developments and the impact on the financial results and conditions of the Company in future periods.

*Confidentiality of its Trade Secrets*

If the Company is unable to protect the confidentiality of its trade secrets, the Company's business and competitive position would be harmed, the Company's business and competitive position would be harmed. In addition to seeking patents for some of the Company's products, it also relies on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain its competitive position. The Company seeks to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with internal and external parties who have access to them. Despite these efforts, any of these parties may breach the agreements and disclose the Company's proprietary information, including its trade secrets, and the Company may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, courts in certain jurisdictions are less willing or unwilling to protect trade secrets. If

any of the Company's trade secrets were to be lawfully obtained or independently developed by a competitor, it would have no right to prevent them from using that information to compete with the Company and its competitive position would be harmed.

*Current Research and Development*
The Company's investment in its current research and development efforts may not provide a sufficient, timely return. The development of Sona's gold nanorod particles is a costly, complex and time-consuming process and the investment in Sona's product development often involves a long wait until a return is achieved on such an investment. Sona is making, and will continue to make, significant investments in product research and development. Investments in new equipment, technology and processes are inherently speculative. Commercial success depends on many factors, including the products and services developed through Sona's research and development efforts, sufficient support from its strategic partners and effective distribution and marketing. These expenditures may adversely affect Sona's operating results if they are not offset by revenue increases. Sona believes that it must continue to dedicate a significant amount of resources to its research and development efforts in order to maintain its competitive position. However, significant revenues from the products may not be achieved for a number of years, if at all. Moreover, the gold nanorod products may not be profitable, and even if they are profitable, operating margins for the gold nanorod products may not be as high as projected.

*Management of Internal Resources during Periods of Company Growth*
Sona must continue to manage its internal resources during periods of company growth or its operating results could be adversely affected. Sona's growth, coupled with the rapid evolution of its markets, may place, significant strains on Sona's administrative and operational resources and increased demands on its internal systems, procedures and controls. Sona's administrative infrastructure, systems, procedures and controls may not adequately support its operations. In addition, Sona's management may not be able to achieve the rapid, effective execution of the product and business initiatives necessary to successfully implement Sona's operational and competitive strategy. If Sona is unable to manage growth effectively, its operating results will likely suffer which may, in turn, adversely affect its business.

*Development and Sales and Marketing Capabilities*
The Company expects to expand its development and sales and marketing capabilities, and as a result, the Company may encounter difficulties in managing its growth, which could disrupt the Company's operations. The Company expects to experience significant growth in the number of its employees and the scope of its operations, particularly in the areas of development and sales and marketing. To manage the Company's anticipated future growth, it must continue to implement and improve its managerial, operational and financial systems, expand its facilities and continue to recruit and train additional qualified personnel. Due to the Company's limited financial resources, the Company may not be able to effectively manage the expansion of its operations or recruit and train additional qualified personnel. The physical expansion of the Company's operations may lead to significant costs and may divert its management and business development resources. Any inability to manage growth could delay the execution of the Company's business plans or disrupt the Company's operations.

*Commercializing its Products*
If the Company is unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market its product, the Company may not be successful in commercializing its products. The Company does not have a sales or marketing infrastructure in place. To achieve commercial success for any of its products that would be approved in the future, the Company must either develop a sales and marketing organization or outsource these functions to third parties. If the Company does not establish sales and marketing capabilities successfully, either on its own or in collaboration with third parties, it will not be successful in commercializing its product candidates.

*Debt Obligations*
Sona has, and may continue to have and incur, a significant amount of indebtedness, including substantial interest free loans from the Atlantic Canada Opportunities Agency, to be recovered from annual repayments between 3% to 5% of gross product revenues. As a result of challenging economic or other conditions affecting the Company, we may incur greater levels of indebtedness than currently exist. The amount of indebtedness that we currently

have and which we may incur in the future could have a material adverse effect on our business, results of operations or financial condition, for example, by (i) limiting our ability to obtain additional financing, (ii) requiring us to dedicate a substantial portion of our cash flow generated from operations to payments on our indebtedness, thereby reducing the funds available for other purposes, (iii) making us more vulnerable to economic downturns, and (iv) limiting our flexibility in planning for, or reacting to, competitive pressures or changes in our business environment. Our ability to make scheduled payments under our indebtedness will depend on, among other things, our future operating performance and our ability to refinance our indebtedness, if necessary. In addition, as we incur indebtedness which bears interest at fluctuating interest rates, to the extent that these interest rates increase, our interest expense will increase. There can be no assurance that we will be able to generate sufficient cash from our operations to pay our debts and other financing obligations. Each of these factors is, to a large extent, subject to economic, financial, competitive, regulatory, operational and other factors, many of which are beyond our control.

*New Products and Lack of any Manufacturing Facilities*

Because our present operations are in the research and development stage, we have no manufacturing facilities for any new products which we may develop for commercial sale, and the design, development and establishment of such facilities will entail significant costs and risks at all stages for the future commercialization of such products. The development and introduction of new products requires substantial research, development and marketing expenditures, which we may be unable to recoup if such products do not gain widespread market acceptance or if the market for such products does not develop as expected. Efforts to accelerate our innovation capabilities may exacerbate risks associated with innovation. If we are unsuccessful in meeting our objectives with respect to our proposed products, our financial condition, reputation and results of operations could be harmed. There can be no assurance that we can successfully produce and bring to market for sale any new products at a commercially profitable level. The new products of our competitors may beat our products to market, be more potent or effective, have more features or be less expensive than our products. They may obtain better market acceptance than our products or render our products obsolete. If we do not introduce new products to meet the changing needs and tastes of consumers in a timely manner and more effectively than our competitors, we may experience declining sales, which could have an adverse effect on our operating results.

*Political, Regulatory and Other Similar Risks*

Political or legal changes within Canada, and to the extent that our operations may extend beyond Canada, foreign political or legal changes, including changes in regulatory oversight and approvals, public protests and blockades, may adversely affect or ability to produce, market, transport or sell our proposed new products.

Failure to comply with or changes to applicable laws, regulations, and permitting requirements in respect of health and safety, consumer protection, or environmental matters, may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions. The occurrence of these various factors and uncertainties cannot be accurately predicted and could have an adverse effect on our business, financial condition and results of operations.

*Cyber security incidents and privacy breaches*

Cyber security incidents and privacy breaches could result in important remediation costs, increased cyber security costs, litigation and reputational harm. Cyber security incidents can result from deliberate attacks or unintentional events. Cyber-attacks and security breaches could include unauthorized attempts to access, disable, improperly modify or degrade the Company's information, systems and networks, the introduction of computer viruses and other malicious codes and fraudulent "phishing" emails that seek to misappropriate data and information or install malware onto users' computers. Cyber-attacks in particular vary in technique and sources, are persistent, frequently change and are increasingly more targeted and difficult to detect and prevent against.

Disruptions due to cyber security incidents could adversely affect the Company's business. In particular, a cyber security incident could result in the loss or corruption of data from the Company's research and development activities, which may cause significant delays to some or all of the Company's research and development. Also, the Company's trade secrets, including unpatented know-how and other proprietary information could be

disclosed to competitors further to a breach, which would harm the Company's business and competitive position. If the Company is unable to protect the confidentiality of its trade secrets, the Company's business and competitive position would be harmed.

*Impact of laws*

The Company operates offices in Canada and plans to offer its products in Canada, the United States, Europe and eventually in other countries. Sona is and will be subject to a variety of laws in Canada, the United States and abroad, including laws regarding consumer protection, privacy, intellectual property, taxation and content suitability, distribution and antitrust, that are continuously evolving and developing. The scope, enforcement and interpretation of the laws that are or may be applicable to Sona are often uncertain and may be conflicting, particularly laws outside of Canada and the United States. It is also likely that as business grows and evolves to a greater number of countries, Sona will become subject to laws and regulations in additional jurisdictions. Compliance with applicable laws or regulations could be very difficult or liability could arise under these laws or regulations due to amendments to or evolving interpretation and enforcement of such laws and regulations. As a result, Sona could be directly harmed, and may be forced to implement new measures to reduce the exposure to this liability. This may require substantial resources to be expended or a modification of its products and services, which would harm the business, financial condition and results of operations of Sona.

*Potential Litigation*

As a growing company with expanding operations, we increasingly face the risk of litigation and other claims against us. Litigation and other claims may arise in the ordinary course of our business and, in addition to product-oriented allegations and personal injury claims, include employee and customer claims, commercial disputes, landlord-tenant disputes and intellectual property issues. These claims can raise complex factual and legal issues that are subject to risks and uncertainties and could require significant management time. Litigation and other claims against us, even if we are ultimately successful, could result in unexpected expenses and liabilities, which could materially adversely affect our operations, reputation and financial condition.

*Availability of Supplies, Transportation Providers, and Skilled Labour*

Profitability is affected by the market prices and availability of supplies and commodities that we use or consume for our operations and new products, which are sourced from a limited number of suppliers. Prices for commodities used or which may be used in our business, like gold, electricity, steel, concrete, and chemicals can be volatile, and changes can be material, occur over short periods of time and be affected by factors beyond our control. Our operations depend on suppliers to meet those needs. We do not have long term contracts with our suppliers. We rely upon and will rely upon independent third party transportation providers for substantially all of our product shipments. Our use of outside delivery services for shipments is subject to risks, including increases in fuel prices, which would increase our shipping costs (freight and delivery), labour disruptions, inclement weather and shipment delays.

Higher worldwide demand for critical supplies and skilled labour could affect our ability to acquire them and lead to delays in delivery and unanticipated cost increases, which could have an effect on our operating costs, capital expenditures and production schedules.

Additionally, we will be relying on certain key third-party suppliers and contractors for equipment, raw materials and services used in, and the provision of services necessary for our business activities. As a result, our operations will be subject to a number of risks, some of which are outside of our control, including negotiating agreements with suppliers and contractors on acceptable terms, the inability to replace a supplier or contractor and its equipment, raw materials or services in the event that either party terminates the agreement, interruption of operations or increased costs in the event that a supplier or contractor ceases its business due to insolvency or other unforeseen events, and failure of a supplier or contractor to perform under its agreement with us or to support our future demand. The occurrence of one or more of these risks could have a material adverse effect on our business, results of operations and financial condition.

*Environmental Regulation*
Our business activities are subject to environmental regulation pursuant to a variety of international conventions and federal, provincial, and municipal laws and regulations. Environmental legislation provides for, among other things, restrictions and prohibitions on spills, releases, or emissions of various substances produced in association which may result from our business operations. The legislation also requires that facility sites be operated, maintained, abandoned and reclaimed to the satisfaction of applicable health and safety regulatory authorities. Compliance with such legislation can require significant expenditures and a breach may result in the imposition of fines and penalties, some of which may be material. Environmental legislation is evolving in a manner expected to result in stricter standards and enforcement, larger fines and liability and potentially increased capital expenditures and operating costs. The discharge of hazardous substances or other pollutants into the air, soil or water may give rise to liabilities to governments (both foreign and domestic), and third parties and may require us to incur costs to remedy such discharge. No assurance can be given that environmental laws will not result in a curtailment of production or a material increase in the costs of production, research and development activities or otherwise adversely affect our financial condition, results of operations or prospects.

The Company believes it is in substantial compliance with all material environmental laws and regulations which currently apply to its current activities. Failure to comply with applicable laws, regulations and permitting requirements in the future may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions, and may result in civil or criminal fines or penalties imposed for violations of applicable laws or regulations and, in particular, environmental laws.

Amendments to current laws, regulations and permits governing operations and activities of nanotechnology life sciences companies, or more stringent implementation thereof, could have a material adverse impact on the Company and cause increases in capital expenditures or costs, or require abandonment or delays in developments of new projects.

*Reliance on Key Employees*
The success of the Company's operations will be largely dependent upon the performance of our key officers, employees and consultants. Developing new lateral flow testing devices depend largely on the scientific and technical skills of the personnel involved. Failure to retain key personnel or to attract or retain additional key individuals with necessary skills could have a materially adverse impact upon our success. We do not have any key man insurance policies with respect to any of our directors, officers or key employees and have no current plans to do so.

In assessing the risk of an investment in the Company's Common Shares, potential investors should realize that they are relying on the experience, judgment, discretion, integrity and good faith of the management of the Company. An investment in our Common Shares is suitable only for those investors who are willing to risk a loss of their entire investment and who can afford to lose their entire investment.

*Conflict of Interest of Management*
Certain of the Company's directors and officers also serve as directors, officers and/or advisors of and to other companies involved in scientific research and development. Consequently, there exists the possibility for such directors and officers to be in a position of conflict. We expect that any decision made by any of such directors and officers relating to the Company will be made in accordance with their duties and obligations to deal fairly and in good faith with the Company and its shareholders, but there can be no assurance in this regard. In addition, each of the directors is required to declare and refrain from voting on any matter in which such directors may have a conflict of interest.

*Availability of Equipment and Access Restrictions*
Scientific research and development and bio-technology companies rely heavily on the availability and access to required scientific or technical resources and related equipment in the particular fields of study. Demand for such scientific or technical resources or limitations on the supply of equipment or access restrictions may affect the

availability of such scientific or technical resources and related equipment to the Company and may delay its business activities.

*Competition*
The life sciences business is intensely competitive in all of its phases and we compete with many companies possessing greater financial and technical resources. Competition in the life sciences business is primarily for the following: securing intellectual property rights; technical expertise to find, develop, and manage such intellectual properties; labour to develop and produce products; and capital for the purpose of funding such projects. Many competitors not only conduct research and development, but also conduct product development and production operations on a world-wide basis. Such competition may result in us being unable to: acquire desired intellectual properties; recruit or retain qualified employees; or obtain the capital necessary to fund our operations and develop our intellectual properties. Existing or future discoveries in the life sciences industry could make our project technically obsolete, or may otherwise materially adversely affect our prospects for success in the future. Furthermore, increased competition could result in increased costs and lower prices for our products which, in turn, could reduce profitability. Consequently, our revenues, operations and financial condition could be materially adversely affected.

*Uninsured or Uninsurable Risks*
Although we maintain insurance to protect against certain risks in such amounts as we consider to be reasonable, our insurance will not cover all the potential risks associated with our operations and insurance coverage may not continue to be available or may not be adequate to cover any resulting liability. It is not always possible to obtain insurance against all risks and we may decide not to insure against certain risks because of high premiums or other reasons. Moreover, insurance against risks such as loss of title to our intellectual properties, acts of war, labour interruptions, natural disasters, environmental pollution, or other hazards as a result of our research and development or future production may not be generally available to us or on acceptable terms. Losses from these events may cause us to incur significant costs that could have a material adverse effect upon our financial performance and results of operations.

*Volatility of Current Global Economic or Financial Conditions*
Current global economic or financial conditions have been subject to continued volatility. Trade wars, import tariffs, Brexit, public protests, rising consumer debt levels, epidemics, pandemics, or outbreaks of new infectious disease or viruses (including most recently, COVID-19),", and the risk of sovereign debt defaults in many countries have caused and continue to cause significant uncertainties in the markets. Although the Company takes appropriate measures and safeguards to protect its staff from infection, these events can result in volatility and disruption to global supply chains, operations, transportation, and mobility of people, which are beyond the control of the Company, and which could adversely affect the availability of components, supplies and materials, labour, interest rates, credit ratings, credit risk, inflation, business operations, financial markets, exchange rates, and other factors material to the Company.

*Foreign Currency Risk*
We conduct business with entities located in foreign jurisdictions, such as the UK. As a result, fluctuations in currency exchange rates could significantly affect our business, financial condition, results of operations and liquidity.

*Potential Volatility of Market Price of Shares*
Securities traded on the CSE have, from time to time, experienced significant price and volume fluctuations unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the market price of the Common Shares. In addition, the market price of the Shares is likely to be highly volatile. Factors such as metals prices, the average volume of shares traded, announcements by competitors, variations in the operating results of the Company, divergence in financial results from analysts' expectations, changes in earnings estimates by stock market analysts, changes in the business prospects for the Company, general economic conditions, cost estimates, results of research and development, production or operating results due to mechanical failure, labour unrest, legislative changes, and other events and factors outside of the Company's control.

The Company is unable to predict whether substantial amounts of its Shares will be sold in the open market. Any sales of substantial amounts of Shares in the public market, or the perception that such sales might occur, could materially and adversely affect the market price of the Shares.

*Dilution through Raising Capital*

Raising additional capital may cause dilution to existing shareholders, restrict operations or require the Company to relinquish rights to its products. Until such time, if ever, as the Company can generate substantial product revenues, the Company expects to finance the cash needs through a combination of equity offerings, debt financings, government or other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements. Currently, the Company does not have any committed external source of funds. The Company will require substantial funding to complete the ongoing and planned research and development activities and to fund operating expenses and other activities. To the extent that the Company raises additional capital through the sale of equity or convertible debt securities, the shareholders ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the shareholders rights as a stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting the Company's ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If the Company raises additional funds through government or other third-party funding, marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, the Company may have to relinquish valuable rights to its products, future revenue streams, research programs or to grant licenses on terms that may not be favorable.

*Securities or Industry Analysts Reports*

The trading market for the Shares will depend in part on the research and reports that securities or industry analysts may publish about us or our business. We currently have no research coverage by securities and industry analysts. If any analysts who may cover us in the future downgrade the Shares or publish inaccurate or unfavorable research about our business, our trading price may decline. If one or more of these analysts later ceases coverage of us or fails to publish reports on us regularly, demand for the Shares could decrease, which could cause our trading price and volume to decline.

*Shareholders have Limited Control*

Shareholders have limited control over changes in our policies and operations, which increases the uncertainty and risks of an investment in our Company. Our Board of Directors determines major policies, including policies regarding financing, growth, debt capitalization and any future dividends to Shareholders. Generally, our Board of Directors may amend or revise these and other policies without a vote of the Shareholders. Shareholders will only have a right to vote, as a class, as may be required by applicable corporate and securities legislation. Our Board of Director's broad discretion in setting policies and the limited ability of Shareholders to exert control over those policies increases the uncertainty and risks of an investment in our Company.

*Financial Reporting and Other Disclosure Requirements*

We are subject to reporting and other obligations under applicable Canadian securities laws and rules of any stock exchange on which the Shares are listed, including National Instrument 52-109 – *Certification of Disclosure in Issuers' Annual and Interim Filings*. These reporting and other obligations place significant demands on our management, administrative, operational and accounting resources. If we are unable to accomplish any such necessary objectives in a timely and effective manner, our ability to comply with our financial reporting obligations and other rules applicable to reporting issuers could be impaired. Moreover, any failure to maintain effective internal controls could cause us to fail to satisfy our reporting obligations or result in material misstatements in our financial statements. If we cannot provide reliable financial reports or prevent fraud, our reputation and operating results could be materially adversely affected which could also cause investors to lose confidence in our reported financial information, which could result in a reduction in the trading price of the Shares.

*Internal Controls and Procedures*
We do not expect that our disclosure controls and procedures and internal controls over financial reporting will prevent all error or fraud. A control system, no matter how well-designed and implemented, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues within an organization are detected. The inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of simple errors or mistakes. Controls can also be circumvented by individual acts of certain persons, by collusion of two or more people or by management override of the controls. Due to the inherent limitations in a control system, misstatements due to error or fraud may occur and may not be detected in a timely manner or at all.

## INTERNAL CONTROLS OVER FINANCIAL REPORTING

### Disclosure Controls and Procedures

Disclosure controls and procedures have been designed by the Company to ensure that financial information disclosed by the Company in the MD&A and in the audited financial statements of the Company is properly recorded, processed, summarized and reported to its officers and the Board of Directors. The Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") believe such controls and procedures as at April 30, 2020 are effective in providing reasonable assurance that material items requiring disclosure are identified and reported in a timely manner.

### Internal Control Over Financial Reporting

The Company's management, with the participation of its CEO and CFO, has designed, established and is maintaining a system of internal control over financial reporting. Under the supervision of the CFO, as at April 30, 2020, the Company's internal control over financial reporting is a process designed to provide reasonable assurance that the financial information prepared by the Company for external purposes is reliable and has been recorded, processed and reported in an accurate and timely manner and in accordance with IFRS. The Company's controls include policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the audited financial statements.

There were no changes in the Company's internal control over financial reporting during the period ended April 30, 2020 or during the year ended October 31, 2019 that materially affected or are reasonably likely to materially affect the Company's internal control over financial reporting.

The Company's management, including the CEO and CFO, believe that any disclosure controls and procedures or internal controls over financial reporting, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by unauthorized override of the control. The design of any systems of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential

future conditions. Accordingly, because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

## SIGNIFICANT ACCOUNTING POLICIES

The Company's significant accounting policies are disclosed in note 5, *Summary of Significant Accounting Policies*, of the audited annual financial statements for the year ended October 31, 2019. Sona has identified certain accounting policies that it believes are most critical in understanding the judgments that are involved in producing the financial statements and the estimates made that could impact results of the operations, which are discussed below.

*Government assistance*
Non-repayable government assistance is recorded in the period earned as other income or netted against expenses. Repayable government loans are recorded initially at fair value, with the difference between book value and fair value recorded as other income. During the period ended April 30, 2020, the Company recorded $295,807 as an other expense (year ended October 31, 2019 – other income of $194,078). At April 30, 2020 and October 31, 2019, no amounts of government assistance, including government loans, were included in amounts receivable.

*Financial instrument*
Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of a financial instrument. Financial assets and financial liabilities are initially measured at fair value. Financial assets are classified into one of the following specified categories: amortized cost, fair value through profit or loss ("FVTPL") or fair value through other comprehensive income ("FVOCI"). Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities classified as FVTPL) are added to, or deducted from, the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities classified as FVTPL are recognized immediately in the statement of loss and comprehensive loss.

The Company's financial instruments are classified and subsequently measured as follows:

| **Financial instrument** | **IFRS 9** |
|---|---|
| Cash | Amortized cost |
| Amounts receivable | Amortized cost |
| Marketable securities | FVTPL |
| Accounts payable | Amortized cost |
| Long-term debt | Amortized cost |
| Deferred government grant | Amortized cost |
| Convertible notes and interest | Amortized cost |

Financial Assets
Subsequent to initial recognition, financial assets classified as loans and receivables are measured at amortized cost using the effective interest method.

Financial assets classified as FVOCI are recognized initially at fair values plus transaction costs and are subsequently carried at fair value, with changes in the fair value recorded in other comprehensive income. The fair value measurements are based on level 1 inputs, being quoted prices in active markets for identical instruments.

*Impairment of financial assets at amortized cost*
The Company recognizes an allowance using the ECL model on financial assets classified as amortized cost. The Company has elected to use the simplified approach for measuring ECL by using a lifetime expected loss allowance for all accounts receivable. Under this model, impairment provisions are based on credit risk characteristics and days past due. When there is no reasonable expectation of collection, financial assets classified

as amortized cost are written off. Indications of credit risk arise based on failure to pay and other factors. Should objective events occur after an impairment loss is recognized, a reversal of impairment is recognized in the statement of loss and comprehensive loss.

Financial Liabilities

Financial liabilities are classified as and are measured at amortized cost subsequent to initial measurement at fair value.

Offsetting financial instruments

Financial assets and financial liabilities are offset, and the net amount reported on the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the asset and settle the liability simultaneously.

## CRITICAL ACCOUNTING ESTIMATES

The preparation of the audited annual financial statements in conformity with IFRS requires management to make judgments and estimates that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results could differ from these estimates. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. Information about critical accounting judgments and estimates in applying accounting policies that have the most significant impact on the amounts recognized in the audited financial statements are outlined below.

*Calculation of initial fair value and carrying amount of long-term debt*

The initial fair value of the Atlantic Canada Opportunities Agency ("ACOA") loans is determined by using a discounted cash flow analysis for the loans, which requires a number of assumptions. The difference between the face value and the initial fair value of the ACOA loans is recorded in the statement of loss and comprehensive loss as government assistance. The carrying amount of the ACOA loans requires management to adjust the long-term debt to reflect actual and revised estimated cash flows whenever revised cash flow estimates are made or new information related to market conditions is made available. Management recalculates the carrying amount by computing the present value of the estimated future cash flows at the original effective interest rate. Any adjustments are recognized in the statement of loss and comprehensive loss as accreted interest and adjustments after initial recognition.

The significant assumptions used in determining the discounted cash flows include estimating the amount and timing of future revenue for the Company and the discount rate. As the ACOA loans are repayable based on a percentage of gross revenue, if any, the determination of the amount and timing of future revenue significantly impacts the initial fair value of the loans, as well as the carrying value of the ACOA loans at each reporting date. The Company is researching and developing its nanorod technology products; accordingly, determination of the amount and timing of revenue, if any, requires significant judgment by management. If the Company expected no future revenues, no repayments would be required on the ACOA loans and the amounts recorded for the ACOA loans on the statement of financial position would be $nil. The discount rate determined on initial recognition of the ACOA loans is used to determine the present value of estimated future cash flows expected to be required to settle the debt. In determining the appropriate discount rates, the Company considered the interest rates of similar long-term debt arrangements, with similar terms. The ACOA loan is repayable based on a percentage of gross revenue, if any; accordingly, finding financing arrangements with similar terms is difficult and management was required to use significant judgment in determining the appropriate discount rates. Management used a discount rates ranging from 8.0% to 15.0% to discount the ACOA loan.

*Share-based payments*

The Company makes certain estimates and assumptions when calculating the estimated fair values of stock options granted and warrants issued. The significant assumptions used include estimates of expected volatility, expected life, expected dividend rate and expected risk-free rate of return. Changes in these assumptions may result in a material change to the expense recorded for grants of stock options and the issuance of warrants.

*Deferred income taxes*
The Company is periodically required to estimate the tax base of assets and liabilities. Where applicable tax laws and regulations are either unclear or subject to varying interpretations, it is possible that changes in these estimates could occur that materially affect the amounts of deferred income tax assets and liabilities recorded in the audited financial statements. Changes in deferred tax assets and liabilities generally have a direct impact on earnings in the period of changes.

Each period, the Company evaluates the likelihood of whether some portion or all of each deferred tax asset will not be realized. This evaluation is based on historic and future expected levels of taxable income, the pattern and timing of reversals of taxable temporary timing differences that give rise to deferred tax liabilities, and tax planning initiatives. Levels of future taxable income are affected by, among other things, the market price for commodities, production costs, quantities of proven and probable reserves, interest rates, and foreign currency exchange rates.

## NEW ACCOUNTING STANDARDS ADOPTED DURING THE PERIOD

*IFRS 16, Leases ("IFRS 16")*
IFRS 16 was issued on January 13, 2016 and replaces the current guidance in IAS 17, *Leases* ("IAS 17"). IFRS 16 specifies how an IFRS reporter will recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from IAS 17. IFRS 16 is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. Management has assessed the impact of the adoption of IFRS 16 on the financial statements of the Company and determined the adoption of IFRS 16 will not have a significant impact on the Company's financial statements. The standard is effective for periods beginning on or after January 1, 2019, with early adoption permitted for entities that have adopted IFRS 15. Management has assessed the impact of the adoption of IFRS 16 and determined that the adoption of IFRS 16 did not have a significant impact on the Company's financial statements.

## OTHER INFORMATION

Additional information regarding the Company is available on the Company's website at www.sonanano.com.