Sona Nanotech Inc.
Management Discussion and Analysis
Year ended October 31, 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 audited annual financial statements (the "Financial Statements") of Sona for the years ended October 31, 2020 and 2019, 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 February 26, 2021. 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. The Company's corporate office and registered 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 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 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".

Operational overview and management changes

In late 2017, Darren Rowles was appointed as President and Chief Executive Officer ("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.

In July 2020, the Company announced the appointment of David Regan as CEO, replacing Mr. Rowles, who has assumed the role of President and Chief Scientific Officer ("CSO"). Mr. Regan previously served the Company as a strategic advisor. Mr. Regan brings to the position more than 15 years of experience with capital markets, mergers and acquisitions, and international business, having served as an officer and director of public companies, and previously as a management consultant in both New York and London.

In November 2020, Mark Lievonen, C.M. was appointed to the Company's Board of Directors. Mr. Lievonen is the former President of Sanofi Pasteur Limited, the Canadian vaccine division of Sanofi. Under his leadership, Sanofi Pasteur became a billion dollar enterprise in Canada, manufacturing over 50 million doses of vaccines for both domestic and international markets. Mr. Lievonen spearheaded a cancer vaccine program and supported the launch of a five-component pertussis vaccine, which is widely used to this day. He has also served on a number of public and not-for-profit boards and industry organizations including as Chair of BIOTECanada and Rx&D (now Innovative Medicines Canada). Currently, Mr. Lievonen is the Co-Chair of the Government of Canada's COVID-19 Vaccine Task Force, a Director of OncoQuest Pharmaceuticals Inc., Biome Grow Inc., and the Gairdner Foundation. He holds a BBA in accounting and a MBA in finance and marketing from the Schulich School of Business, York University, and is a FCPA. Mr. Lievonen replaced Mr. Zephaniah Mbugua, who served on the Company's Board since August 2018.

Sona is a nano technology life sciences firm that has developed two proprietary methods for the manufacture of rod-shaped gold nanoparticles. The principal business carried out and intended to be continued by Sona is the research and development of its proprietary technology for use in multiplex diagnostic testing platforms that will improve performance over existing tests in the market. Sona's gold nanorod particles are CTAB (cetyltrimethylammonium) free, eliminating the toxicity risks associate with the use of other gold nanorod technologies in medical applications. It is expected that Sona's gold nano technologies may be adapted for use in

applications as a safe and effective delivery system for multiple medical treatments, subject to the approval of various regulatory boards.

Sona filed an International (PCT) Patent Application on November 2, 2018, with a priority date of November 4, 2017, to protect their core gold nanorod technology. Patent protection is now being pursued in Australia, Canada, China, Europe, India, Japan, Korea, and US 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.

In late 2018, the Company completed the relocation of its laboratory facilities to Halifax, Nova Scotia 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 is a research and development company that owns proprietary gold nanorod ("GNRs") technology that can be used in a variety of lateral flow applications, specifically rapid diagnostic testing devices. In a lateral flow test, particles such as Sona's GNRs are used to bind to biological materials and carry them along a test strip, producing a positive or negative result. Sona has applied for patent protection in eight major jurisdictions on its technology for the manufacture of GNRs that offers several functional performance advantages over other particles currently in the market, such as:

- Sona GNRs are designed to maximize the ability to detect bio markers in low concentration levels, essentially meaning Sona tests may be able to detect a condition earlier than many other particles.
- Sona GNRs typically move though lateral flow test membranes at a faster pace than other particles types, meaning the Sona test may be able to produce results faster than many other lateral flow tests.
- Sona GNRs can be manufactured in various sizes which allow multiple colour test lines to be generated, providing a simple differentiation between test and control results, whereas competitive spherical gold nanoparticles can only present as a red line.

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.

Rapid Screening Test for Coronavirus

Sona has deployed its proprietary nanotechnology in the development of a rapid screening test for the current coronavirus, COVID-19, and has developed a quick-response lateral flow test to screen patients for the COVID-19 virus. Sona has integrated its technology in 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.

The Sona COVID-19 test directly detects the COVID-19 virus, confirming active infection. 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, the serological tests that are NOT specific to a COVID-19 infection can 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 positives.

As many countries prepare for a re-opening of their economies, there is growing consensus that an increase in testing will be required to keep economies open while still protecting the population. Sona's rapid COVID-19 antigen test is a device designed to be used at point-of-care to detect the presence of the SARS-Cov2 virus in a patient within 15 minutes, which could make it a critical component of testing protocols being considered by governments, companies or individuals as plans to relax social distancing measures are implemented. The Company's test will not require either specialized equipment or lab-based professionals to interpret its test results.

The Sona rapid detection COVID-19 antigen test could be ideal for use in a variety of scenarios for diagnostic, screening and assurance testing - 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.

Validation Results for COVID-19 Antigen Test

In 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 has been used for submission to Health Canada for an Interim Order ("IO") and the United States Food and Drug Administration ("FDA") for an 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 occurred in MRIGlobal's Kansas City laboratories and assessed Sona's test using live SARS-CoV-2 virus following its past, successful internal evaluation using gamma irradiated COVID-19 virus. The EUA studies followed 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 were included as part of the Company's regulatory submissions to Health Canada for an IO and the FDA for an EUA.

MRIGlobal, using live COVID-19 viral cultures, determined the test to have a Limit of Detection ("LOD") of 2.1 x 10^2 $TCID^{50}$ which corresponds to an ability to detect the virus in patients with 'low' viral loads in 15 minutes, as compared to RT-PCR testing which typically takes 24 to 48 hours to detect the virus. LOD is the minimum amount of target microorganisms that can be reliably detected under optimal conditions and is an essential step in determining the sensitivity of any assay. Current studies show positive COVID-19 patients presenting symptoms have viral loads in the $10^4 – 10^6$ range.

In-house validation studies were also conducted to assess potential clinical performance of the test using 30 nasopharyngeal samples from healthy individuals who were presumed negative for COVID-19. Results from the study generated a specificity of 96% (29/30) and a sensitivity of 96% (28/29) and a Limit of Detection ("LOD") of 2.1 x 10^2 $TCID^{50}$. All specimen samples tested generated negative results, except for one, generating the above result of 96% specificity. To generate the sensitivity data, the remnants of each negative sample were spiked with gamma irradiated COVID-19 virus and the tests rerun to determine the positive results, generating the above result of 96% sensitivity.

As the pandemic continues and the understanding of COVID-19 improves, regulators have placed greater emphasis on clinical, 'in-field' evaluations of rapid tests at the point of care to ensure they can be deployed with confidence. Following consultation with MRIGlobal and the FDA, Sona entered into an independent clinical, in-field evaluation study ("CES") to generate the data to support its analytical and clinical data as part of the submission it has made to Health Canada for an IO and the FDA for EUA. In-field collection of a minimum of 30 confirmed negative and 30 confirmed positive specimens and the associated data analysis was completed. The Company engaged the King Fahd Research Center lab at King Abdulaziz University within SaudiVax, a life sciences joint venture between PnuVax Inc. of the United States and UYC Inc. of Saudi Arabia, to carry out the CES.

In late August, from its CES, the Company announced that its rapid detection COVID-19 antigen test achieved a sensitivity of 84.6% and a specificity of 90.0%. The CES collected 99 collected clinical patient samples, which included 39 positive samples and 60 negative samples, as determined by RT-PCR testing. The data from this

study was used to support the Company's analytical and clinical data as part of the submission it has made to Health Canada for an IO and the FDA for an EUA approval for its rapid detection COVID-19 antigen test.

On October 28, 2020, the Company received notice from the FDA that the Company's request for an EUA for the marketing of its rapid, COVID-19 antigen test in the United States "is not a priority" and consequently such authorization will not be issued at this time. The FDA cited current EUA request prioritization criteria as including "the public health need for the product" and did not comment on the performance of the Sona test.

On November 25, 2020, the Company withdrew its application for an Interim Order authorization ("IO") from Health Canada for the marketing of its rapid, COVID-19 antigen test based on feedback from Health Canada and to obtain more clinical data to augment its submission.

The Company continues to work with several potential partners to secure an additional clinical trial to support other potential regulatory submissions. Any trial would require a sponsoring institution, a principal investigator, a study protocol, relevant medical ethics review board approval and Health Canada Investigational Testing Division approval. In advance of any such additional clinical trial, the Company continues to optimize its saliva-based prototype of its rapid, COVID-19 antigen test.

In addition to continuing to pursue approval of the Company's rapid COVID-19 antigen test, which uses a nasopharyngeal swab, the Company continues to validate the next evolution of its rapid COVID-19 antigen test which aims to use saliva samples, building on its existing technology, providing for less invasive sample collection. The Company intends to seek a large-scale trial specifically for its saliva-based test. This test would require a separate submission to regulators for approval.

The Company cautions that its rapid detection COVID-19 antigen test is not yet approved by Health Canada. The Company is not making any express or implied claims that its product has the ability to eliminate, cure or contain the COVID-19 virus (or SARS-2 Coronavirus) at this time. Sona recommends that users consult the CDC Interim Guidance for Antigen Testing for SARS-CoV-2: https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html.

Sona has sold tests to Canadian companies under 'research use only' labelling. These tests have been evaluated as a screening tool for the identification of COVID-19 amongst employees. Potential programs envision having employees that test positive with the Sona rapid test designated 'presumed positive', removed from congested work environments and referred to medical professionals for confirmatory testing. This process would allow employers to remove affected staff from the workplace, reduce potential spread and help businesses remain open in pandemic conditions. The Company believes that screening individuals in congested environments, whether they be mining operations, airports or long-term care facilities is the best use case for Sona's rapid test and that this added testing tool can play an important role in Canada's response to COVID-19. These tests were manufactured in the Company's in-house manufacturing facility.

The Company appointed Obelis S.A ("Obelis") as its Authorized Representative in the European Union, to complete the CE Marking process for its In-Vitro Diagnostic Devices. Obelis, a regulatory and compliance consulting service provider operating since 1988, certified both under ISO 9001 & 13485, has successfully helped more than 3,000 manufacturers in over 60 countries to introduce their products to the European market. As part of the CE Marking compliance process, the Company worked with Obelis, to compile its technical documentation to serve as evidence of conformity with the CE Marking requirements, and with Sona's contract manufacturer to complete its technology transfer batch production runs.

On December 31, 2020, Sona declared its CE Mark status for its rapid, COVID-19 antigen test. The CE Mark declares the conformity of the Sona test with EU regulations and allows Sona to commercialize its test throughout Europe and potentially other territories in which the CE Mark is recognized.

The Company intends its test to be used as a screening tool for organizations wishing to screen individuals in high-risk congregate settings in which testing could quickly identify persons with a SARS-CoV-2 infection to inform infection prevention and control measures to reduce risk of transmission. Individuals who have symptoms of COVID-19 or who have had close contact with someone with confirmed COVID-19 should be considered as candidates for screening. As a rapid screening test, all results should be assessed in the context of the local prevalence of the virus and considered 'presumed' positive or negative until confirmed by a physician.

With its CE Mark secured, the Company is able to take firm orders in territories accepting a CE Mark and is able to make corresponding manufacturing commitments from its contract manufacturer in the United Kingdom. The Company is currently also in the process of technology transfer to a second manufacturer, in North America. The Company continues to solicit sales and will update the market as material developments occur.

Other Lateral Flow Tests

The Company's product portfolio of other proprietary lateral flow tests will continue upon regulatory approval and commercialization of the Company's rapid detection COVID-19 antigen test. These other tests leverage the Company's proprietary GNRs technology's highly sensitive ability to detect various biomarkers in the Pico gram range.

Sona's Concussion Test

An estimated 10 million concussions occur each year globally, with 2.9 million per year in the US alone, including 837,000 incidents involving children. As its next rapid-response test R&D project, leveraging the Company's proprietary GNRs technology, Sona's concussion test is ready to enter the prototype development stage. Industry standard timelines for such a test to reach commercialization is estimated at 12-24 months, subject to regulatory approvals.

The Sona concussion test seeks to detect the presence of Glial fibrillary acidic protein ("GFAP"), a biological marker associated with concussions, typically released into the blood stream within minutes of an impact to the head. GFAP appears at trace amounts within minutes following a head impact, and the ability of Sona's proprietary GNRs technology to detect biomarkers at very low levels is ideally suited for such a test. GFAP has been approved by the FDA as an effective indicator that may indicate a patient has suffered a concussion. Sona expects this test will be in the form of a lateral-flow assay, similar to its rapid detection COVID-19 antigen test and will be designed to be administered in-field within a few minutes of a causality event, without the need for laboratory equipment or medical expertise.

The Company has engaged Bonham/Wills & Associates ("Bonham/Wills"), a leading sports consulting firm, to assist in securing test development sponsorship partners for Sona's concussion test. Bonham/Wills is tasked with identifying partners to participate in the development of a prototype and eventual field validation for a test for mild-traumatic brain injury, commonly referred to as concussion. Partners will be asked to support on-going test development, optimization, validation, and field studies with a view to obtaining regulatory approval around the globe.

Funding - Next Generation Manufacturing Canada

In March 2020, Sona was awarded a $4.1 million grant from Canada's Next Generation Manufacturing ("NGen"), Canada's Advanced Manufacturing Supercluster, to develop and commercialize its rapid detection COVID-19 antigen test. This non-repayable grant was effective to November 15, 2020 and has been used to accelerate the development of the Company's COVID-19 antigen test.

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 October 31, 2020, the Company has received funding of $3,508,376 and incurred expenditures of $3,868,977, including $70,916 in accounts payable as at October 31, 2020. Total reimbursable expenditures covered by the grant to the end of the project amounted to $3,896,295.

NGen has played 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 GNRs technology. NGen's involvement has also helped to bring other Canadian suppliers and partners to the Company's efforts.

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 closing price of the Company's common shares on the CSE was $0.25 per 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 closing price of the Company's common shares on the CSE was $0.125 per 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.

Financing

On December 16, 2020, the Company closed a non-brokered private placement financing with the issuance of 2,259,200 units at $1.00 per unit, for gross proceeds of $2,259,200. Officers and directors of the Company subscribed for 250,000 units pursuant to the financing. Each unit consists of one common share and one-half of a common share purchase warrant. Each whole warrant is exercisable to purchase one common share of the Company at a price of $1.25 per share for a period of 24 months from the closing date of the financing. Proceeds of the financing are being used to pursue a European regulatory self-certification CE Mark declaration, which was received on December 31, 2020, as well as to produce further clinical trial data for the Company's rapid COVID-19 antigen nasal pharyngeal test and its saliva-based prototype version of the test, and for general working capital purposes.

SELECTED ANNUAL FINANCIAL INFORMATION

	Year ended October 31, 2020	**Year ended October 31, 2019**	**Year ended October 31, 2018**
	$	$	**$**
Expenses	**(6,009,154)**	(1,737,884)	(1,182,427)
Other income (expenses)	**(262,869)**	(783,825)	(4,015,906)
Comprehensive loss for the year	**(6,272,023)**	(2,521,709)	(5,198,333)
Loss per common share	**(0.10)**	(0.05)	(0.19)
Cash dividends per common share	**-**	-	-
Total assets	**724,629**	859,211	3,177,580
Current liabilities	**4,160,094**	1,214,835	2,435,322
Long-term liabilities	**-**	666,819	543,184
Shareholders' equity (deficiency)	**(3,435,465)**	(1,022,443)	199,074

SELECTED QUARTERLY FINANCIAL INFORMATION

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

	Oct 31, 2020	Jul 31, 2020	Apr 30, 2020	Jan 31, 2020	**Oct 31, 2019**	Jul 31, 2019	Apr 30, 2019	Jan 31, 2019
	$	$	$	$	**$**	$	$	$
Expenses	**(3,450,545)**	(1,722,424)	(528,657)	(307,528)	**(434,055)**	(465,855)	(469,177)	(368,797)
Other income (expenses)	**52,539**	4,000	(297,307)	(22,101)	**45,374**	(881,154)	28,473	23,482
Net loss for the quarter	**(3,398,006)**	(1,718,424)	(825,964)	(329,629)	**(388,681)**	(1,347,009)	(440,704)	(345,315)
Loss per share – basic & diluted	**(0.06)**	(0.03)	(0.01)	(0.01)	**(0.01)**	(0.02)	(0.01)	(0.01)

Results of Operations for the years ended October 31, 2020 and 2019

The Company reported a net loss for the year ended October 31, 2020 of $6,272,023, or $0.10 per share, as compared to a net loss of $2,521,709, or $0.05 per share, for the year ended October 31, 2019.

Expenses

During the current year, the Company incurred expenses of $9,185,966 (before NGen cost recoveries), an increase of $7,448,082 from the $1,737,884 incurred in the prior year. In the current year, the Company incurred $3,606,036 (2019 - $51,896) in research and development expenses, primarily on its COVID-19 project which commenced in early 2020. The Company also incurred an increase in salary and benefits of approximately $376,000 and an increase in professional and consulting fees of approximately $564,000 in relation to its COVID-19 project. The Company recovered $3,176,812 of eligible expenses from the NGen COVID-19 project funding grant. The Company also recovered an additional $692,165 in eligible capital equipment costs.

Securities and regulatory costs increased in the current year by approximately $51,000 due to costs associated with the Company obtaining its new OTC trading symbol and clearing its shares for trading on the OTCQB Marketplace in the U.S. In addition, the Company increased its efforts on sales and marketing, resulting in an increase of approximately $97,000 from the comparable year. Management service fees of $228,000 (2019 – $228,000) relate to consulting services provided by Numus Financial Inc. ("Numus Financial"), which are unchanged from the prior year. Travel costs decreased approximately $66,000 compared to the prior year, as very limited travel is occurring due to COVID-19 travel restrictions.

Administrative expenses, including rent and related costs, are comparable to the prior year. Additions to property and equipment during the year ended October 31, 2019 resulted in a higher depreciation expense of $66,367 during the current year (2019 - $51,104). Virtually all of the Company's fixed asset additions in fiscal 2020 have been funded by the NGen grant, and therefore there is no corresponding increase in depreciation charges.

The Company has granted stock options during the years ended October 31, 2020 and 2019 to officers, employees and consultants of the Company. In October 2020, the Company granted 200,000 stock options with an exercise price of $7.91 to a consultant of the Company. In September 2020, the Company granted 665,000 stock options with an exercise price of $6.57 to employees and consultants of the Company. In July 2020, the Company granted 1,000,000 stock options with an exercise price of $7.47 to officers, employees and consultants of the Company. 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. During the prior year 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 October 2020 stock options was $1,435,138, the fair value of the September 2020 stock options was $3,850,876, the fair value of the July 2020 stock options was $6,776,537, the fair value of the March 2020 stock options was $589,911, and the fair value of the January 2019 stock options was $360,601. Options are valued using the Black-Scholes option 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 $3,092,539 has been recorded for the current year (October 31, 2019 - $241,896).

During the fourth quarter of the year ended October 31, 2020, the Company incurred expenditures of $4,054,397 (before NGen cost recoveries), consisting primarily of research and development expenditures, as well as consulting expenditures, that were related to the Company's COVID-19 project. The Company also incurred share-based compensation expense of $2,114,343 during the fourth quarter due to options granted during the year ended October 31, 2020.

Other income and expenses

During the prior year, the Company recorded $194,078 of other income relating to the fair value adjustment on the repayable government loans (the "ACOA loans"). The Company recorded an expense of $295,807 during the current year, as the fair value of the ACOA loans has been increased to its face value of $978,332. 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 year. The Company recorded $15,706 (2019 - $60,330) of accreted interest on the ACOA loans for the year.

During the comparable year, the Company recorded $33,000 of accreted interest on the convertible notes, which were fully accreted during the year ended October 31, 2019. Interest of $7,395 (2019 - $44,250) was recognized on the Company's convertible notes prior to the settlement, during the current year. The Company recorded a gain on the value of its investments of $3,500 in the current year and a loss of $1,000 during the comparable year.

During the current year, most of the Company's research and development costs have been covered by the NGen funding grant for the COVID-19 project. During the year ended October 31, 2020, the Company recorded tax credits of $55,000 compared to $81,826 in the prior year.

During the fourth quarter of the year ended October 31, 2020, the Company entered into a loan agreement with Numus Financial. The loan is for up to $600,000, has an annual interest rate of prime plus 1% and has a 2% lender fee. The loan is repayable in full, including all interest and lender fees, on demand. The Company has drawn $510,000 on the loan, including a lender fee of $10,000, and has accrued interest of $2,461 during the year ended October 31, 2020. The remaining $100,000 of the loan was drawn subsequent to October 31, 2020. Interest expense on long-term debt during the prior year was $8,000, which was related to a loan from an arm's length creditor that was settled during the year ended October 31, 2019.

In the prior year, the Company incurred a loss on debt settlement of $80,000 due to the settlement of convertible debt with a carrying amount of $137,093 based on its conversion price of $0.158 per share and issuance of 867,677 common shares to the debt holder. In addition, the Company recorded a loss on disposal of resource properties of $833,149 as a result of the agreements the Company entered with Antler Gold Inc. ("Antler"). Under the agreements Antler acquired the Company's two subsidiaries (6321593 Canada Inc. and Minera Zapoteca, S.A. de C.V.), resource properties, technical data and related liabilities for nominal consideration. See notes 16 and 17 of the financial statements for the year ended October 31, 2020 for further details.

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 October 31, 2020, Sona had a cash balance of $102,782, compared to cash of $580,656 at October 31, 2019.

The negative working capital balance at October 31, 2020 was $3,612,117 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 October 31, 2020, as well as the addition of a loan from Numus Financial during the current year in the amount of $512,461, including lender fees and accrued interest. Subsequent to October 31, 2020, the Company received an additional loan of $100,000 from Numus Financial. The loan has an annual interest rate of prime plus 1% and a 2% lender fee and is repayable on demand. The Company has also incurred some significant payables associated with the commercialization of its COVID-19 project during the year ended October 31, 2020.

During the year ended October 31, 2020, Sona used net cash of $4,054,643 to fund operating activities, including its COVID-19 project. NGen funds of $3,508,376 were received, of which $3,176,812 was incurred for eligible expenditures and $692,165 for eligible capital equipment additions. The Company also received cash of $115,625 upon exercise of 425,000 stock options and $149,062 upon the exercise of 596,250 warrants during the current year. In addition, share issuance costs of $2,279 were incurred in association with the conversion of the Notes during the year, and the Company also purchased other property and equipment of $1,850.

Sona's business to date has been the research and development of its gold nanoparticle products. Sona has not derived any revenue from operations and therefore 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. There can be no assurance that such sources of funding will continue to be available to the Company on acceptable terms or at all.

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 additional financing alternatives and completed a private placement financing of $2,259,200 subsequent to year end. However, there can be no assurance that the required 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 necessary regulatory approvals and 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, 2020 for additional details.

COMMITMENTS AND CONTINGENCIES

The Company has an employment agreements with the CEO and the CSO which provide that, should a change in control event occur, as defined in the employment agreements, the CEO will receive a lump sum payment of up to 24 months of his then current base salary based on the value of the Company as of the date of the change of control, and the CSO will received a lump sum payment of 24 months of his then current base salary as of the date of the change of control.

On December 17, 2020, a putative shareholder class action lawsuit was filed in the United States District Court for the Central District of California. The complaint asserts claims under Sections 10(b) and 20 of the Securities Exchange Act of 1934 on behalf of a putative class of investors who purchased or otherwise acquired stock of the Company in US transactions between July 2, 2020 and November 25, 2020 (the "US action"). The suit alleges that the Company made material misstatements regarding its rapid detection COVID-19 antigen test. The case is in its early stages.

On December 18, 2020, a Notice of Action and Statement of Claim was filed in the Supreme Court of Nova Scotia. The Statement of Claim purports to assert claims on behalf of a class of persons or entities who purchased stock of the Company based on similar allegations of material misrepresentations and omissions as alleged in the US action. The case is in its early stages.

The Company believes these claims are without merit and intends to contest the claims and mount a vigorous defence.

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 October 31, 2020, the Company had 61,271,778 common shares outstanding. As of February 26, 2021, the Company had 63,587,228 common shares outstanding due to the private placement financing completed in December 2020 and 56,250 stock options that were exercised subsequent to the end of the year.

As of October 31, 2020, the Company has 4,337,500 stock options outstanding at an average exercise price of $3.35 per common share with varying expiry dates. As of February 26, 2021, the Company has 4,531,250 stock options outstanding at an average exercise price of $3.38 per common share with varying expiry dates. 250,000 stock options were granted and 56,250 stock options were exercised subsequent to the end of the year.

As of October 31, 2020, there were no common share purchase warrants outstanding. As at February 26, 2021, there were 1,129,600 common share purchase warrants outstanding pursuant to the December 2020 financing. The warrants are exercisable at a price of $1.25 per share for a period of 24 months from the closing date of the financing.

RELATED PARTY TRANSACTIONS

During the year ended October 31, 2020, 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 $228,000 (year ended October 31, 2019 – $228,000), controller services of $47,500 (year ended October 31, 2019 - $30,000), and incurred rent and administrative costs from Numus in the amount of $30,600 (year ended October 31, 2019 – $30,603). On July 16, 2019, $153,000 of the outstanding amounts owing to Numus were settled through the issuance of shares of the Company

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.

During the year ended October 31, 2020, the Company entered into a loan agreement with Numus. The loan is for up to $600,000, has an annual interest rate of prime plus 1% and has a 2% lender fee. The loan is repayable in full, including all interest and lender fees, on demand. The Company has drawn $510,000 on the loan, including lender fees, during the year ended October 31, 2020 and has accrued interest of $2,461 as at October 31, 2020. As at October 31, 2020, the amount owing to Numus, including the loan balance and accrued interest, was $944,344 (October 31, 2019 – $218,550).

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 year ended October 31, 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 year ended October 31, 2020, the Company granted 2,965,000 stock options under the Company's stock option plan. 1,740,000 of the stock options were issued to directors and officers of Sona. 840,000 of the options issued to related parties are exercisable into one common share at a price of $0.60 per share, vest at the rate of 25% every six months and will expire on March 17, 2025. 900,000 of the options issued to related parties are exercisable into one common share at a price of $7.47 per share, vest at the rate of 25% every six months and will expire on July 7, 2025.

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 common shares. As at October 31, 2020, the amount owing to RCI was $131,294 (October 31, 2019 - $43,646). As at October 31, 2020, an amount of $38,750 was also owing to a director of the Company.

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 common shares.

Compensation awarded to key management during the year ended October 31, 2020 was $2,689,784, including $353,410 in salaries and fees earned, and $2,336,374 in share-based compensation expense (October 31, 2019 - $191,529 in salaries and fees earned, and $148,310 in share-based compensation expense). The Company's key management includes the directors, CEO, CFO, and the CSO.

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 sciences company.

The Company has incurred substantial losses since its inception, and has derived no revenue from operations. The Company 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

The Company will 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 delay or indefinitely postpone further research and development of its projects, with the possible loss of intellectual property rights, curtail or terminate its operations, or miss certain acquisition opportunities. If the Company is not successful in generating significant revenues, or if 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 research and development activities and fund production of its products. 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 favorable terms. The Company may issue securities on less than favorable 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.

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.

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. During this time, the Company has been constrained in its ability to pursue and secure partnerships, collaborations and clinical trials due to travel restrictions and quarantine requirements.

Medical Device Regulation

The Company's COVID-19 antigen test is a medical device requiring approval of regulatory authorities, including Health Canada in Canada and the FDA in the U.S., before it can be sold for other than research purposes in those jurisdictions. The approval process can be lengthy and require significant data collection and conduct of clinical trials, which can involve significant costs. Both Health Canada and the FDA have established expedited processes for approval of COVID-19-related products, and the Company submitted its product for approval under both regimes. On October 28, 2020, the Company received notice from the FDA that the Company's request for an EUA for the marketing of its rapid, COVID-19 antigen test in the United States "is not a priority" and consequently that such authorization will not be issued at this time. The FDA cited current EUA request prioritization criteria as including "the public health need for the product" and did not comment on the performance of the Sona test. On November 25, 2020, the Company withdrew its application for an Interim Order

authorization ("IO") from Health Canada for the marketing of its rapid, COVID-19 antigen test based on feedback from Health Canada and to obtain more clinical data to augment its submission. There can be no assurance that the Company will be successful in completing the clinical trials necessary to support its regulatory approval applications on a timely basis or at all. If the Company is successful in collecting the required data, and the data supports the performance of the COVID-19 antigen test at the levels previously reported by the Company, there is still no assurance that approvals from Health Canada of the FDA will be granted on a timely basis or at all. In addition to reviewing clinical trial results and third-party analytical studies, regulators may request additional studies/experiments or conduct their own clinical and analytical studies over which the Company may have no control. Also, regulatory requirements for test approvals may change over time given the evolving understanding of the virus and view on societal needs and what is in the public interest. Without regulatory approvals, the Company cannot make sales in these markets, and any delay in obtaining approvals may adversely affect the Company's ability to compete with other tests available in these markets, which may adversely affect its business and operating results.

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 securities law compliance, 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. On December 17, 2020, a putative shareholder class action lawsuit was filed in the United States District Court for the Central District of California, and on December 18, 2020, a separate Notice of Action and Statement of Claim was filed in the Supreme Court of Nova Scotia asserting claims on behalf of a class of shareholders. Both suits allege that the Company made material misstatements regarding its rapid detection COVID-19 antigen test, and are in their early stages. The Company believes these claims are without merit and intends to contest the claims and mount a vigorous defence. 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.

Competition

The life sciences business in general is intensely competitive in all of its phases and we compete with many companies possessing greater financial and technical resources. The severe impacts of the COVID-19 pandemic have led to significant research and development activity by companies pursuing COVID-19 tests. There are currently 58 approved COVID-19 tests in Canada, including 15 rapid tests, with a total of 338 emergency use authorizations issued by the FDA, including 15 for rapid antigen tests, the Company's target market. Many of these tests are produced by companies with greater resources than Sona, and such tests may have demonstrated higher levels of specificity and sensitivity than Sona's COVID-19 Antigen test. Certain of such tests have established market acceptance and supply channels, which may make it difficult for Sona to secure customers for its product if it is successful in obtaining regulatory approval in Canada and the United States. In addition, a number of COVID-19 vaccines have been approved for use in Canada, the United States and Europe, and jurisdictions are establishing programs aimed to immunize large portions of their populations. While the Company expects diagnostic testing, and rapid testing in particular, to remain an important part of the fight against COVID-19, there can be no assurance that increasing rates of vaccination will not reduce demand for diagnostic testing, including the Company's products.

Competition in the life sciences business in general 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.

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.

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.

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
The Company conducts business with entities located in foreign jurisdictions, such as the United Kingdom. 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.

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 October 31, 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 October 31, 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 year ended October 31, 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 3, *Summary of Significant Accounting Policies*, of the audited annual financial statements for the year ended October 31, 2020. 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 year ended October 31, 2020, the Company recorded $295,807 as an other expense (year ended October 31, 2019 – other income of $194,078). At October 31, 2020, the Company has recorded a government grant receivable of $360,601 related to NGEN funding (October 31, 2019 - $nil), which was received subsequent to year end.

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
Government grant receivable	Amortized cost
Marketable securities	FVTPL
Accounts payable	Amortized cost
Long-term debt	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 Expected Credit Losses ("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.

OTHER INFORMATION

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